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THE
NEW ENGLAND FARMER,

CONTAINING

ESSAYS, ORIGINAL AND SELECTED,

RELATING TO

AGRICULTURE AND DOMESTIC ECONOMY,

WITH

ENGRAVINGS, AND THE PRICES OF COUNTRY PRODUCE.

BY THOMAS G. FESSENDEN.

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NEW ENGLAND FARMER.

Published every Saturday, by THOMAS W. SHEPARD, Rogers' Building, Congress Street, Boston; at \$2.50 per ann. in advance, or \$3.00 at the close of the year.

VOL. I.

BOSTON, SATURDAY, AUGUST 3, 1822.

No. 1.

PROSPECTUS OF THE NEW ENGLAND FARMER.

AGRICULTURE, within a few years, has been improved with a rapidity without precedent in the annals of art; and new discoveries and processes, in its various branches, are still in a train of successful development. These improvements are of paramount importance, not only to the practical farmer, but to the whole community. Every human being has an interest in that art which is the foundation of all other arts, and the basis of all civilization.

Skill as well as industry is at least as requisite in agriculture, as in any of the finer but less useful arts. The head must direct the hand of husbandry; and in cultivating the earth, the most incessant toil, without the guidance of knowledge, and the superintendence of intellect, is of little avail. The science of agriculture is in a great degree founded on experience. It is therefore of consequence that every farmer should know what has been done, and what is doing by others engaged in the same occupation, and that he should impart to others the fruits of his own experiments and observations. Knowledge of this description can in no way be so cheaply, beneficially and generally diffused as by newspapers chiefly devoted to those topics which are particularly and appropriately interesting to the cultivators of the soil.

Publications of this kind have been found to be of great utility in Europe and in the United States. The *American Farmer*, at Baltimore, and the *Plough Boy*, at Albany, ably conducted and liberally patronized agricultural papers, have rendered services to the country which are generally and highly appreciated. Those papers, however, cannot be so conveniently circulated in New England as a similar publication might if printed in its Metropolis. Besides, the matter contained in those papers is not always adapted to the soil and climate of the Eastern States; and communications proper for an agricultural paper cannot be transmitted several hundreds of miles without more delay, risque and expense, than most are willing to encounter, with no other remuneration than a prospect of benefit to the public.

The NEW ENGLAND FARMER will be edited by a gentleman of science, conversant with the practice as well as the theory of husbandry.—The proprietor has likewise been promised the assistance of several gentlemen who have been distinguished for successful experiments and able essays calculated to improve the agriculture of New England.

Although this paper will be principally devoted to Agriculture, it will likewise contain a concise summary of news, and sketches of topics common to newspapers in general. Indeed, as a mere vehicle of intelligence, without reference to its agricultural contents, it is presumed it will prove more useful to country subscribers than those papers which are nearly filled with ship news, mercantile advertisements, &c. of little or no value to those who live at a distance from our sea-ports. And the proprietor engages

that no more than one fourth part of his paper shall, in any case, be filled with advertisements; and in general a still smaller portion of it will be occupied by advertising customers. Party politics, and polemical divinity shall be likewise absolutely excluded from the columns of the New England Farmer.

Massachusetts Agricultural Repository and Journal.

We know of no publication so well deserving of liberal patronage and general diffusion among an agricultural community, as the above named. We have turned over the leaves of many works of a similar nature issued on either side of the Atlantic, but have seen none, which we think contains, in proportion to its quantity of matter, so much to be remembered and practised upon as the subject of this notice. Some foreign journals which we have seen, contain articles more elaborately written, but at the same time they are generally more speculative, and less useful. Good Sense, Science and Agricultural Experience are exhibited in every number of the Massachusetts Journal, and by their union give results, which cannot fail to benefit that portion of an enlightened community for whose use they are more immediately intended.

We shall not attempt to write a review of this Journal, but merely to give such notices of its contents, as we hope may induce such of our subscribers as are not in possession of its numbers to procure them for their own benefit, as well as to assist in the diffusion of the most useful kind of useful knowledge for the benefit of the public.

The number for June, 1822, commences with "*Remarks on the manner in which this Journal is conducted, and the rules by which the committee entrusted with the publication are governed.*" By J. L. one of that Committee." We shall here give some extracts from this paper, which appear to us of general importance, though made with reference to a particular subject.

"The Committee appointed for the publication of the Journal do not consider themselves as in any degree responsible for the correctness of the statements, or the soundness of the theories of the various writers, whose essays they publish. Their rule is to admit every essay, which appears to contain any new hint in relation either to Agriculture or Horticulture. It is manifestly impossible for them to judge of the correctness in point of fact, of any statement made by a correspondent, and they have believed, that a more free and unreserved communication of all Agricultural experiments, whether the conclusions drawn from them are erroneous or not, is of great use. The cautious farmer, if he is struck with their novelty, may try them for himself," &c.

"It is true that with respect to many subjects intimately connected with the prosperity of our agriculture, our Journal during the last thirty years has contained a great number of opposite, and irreconcilable opinions. But this ought not to diminish the public confidence, since it is avowed to be conducted on the principles of free enquiry, and since it is not more liable to this objection than all similar works, published in this or in the European world. Men of science are found to differ on most essential points. How many theories have been published, have

prevailed for a time, and have gone into oblivion in the important science of medicine! How materially has chemical science changed, not only since the time of Priestly and Black, but since it was supposed to be irrevocably fixed by Lavoisier and the French chemists of his school! How great are the divisions of theoretical opinion among the Geologists, the Wernerians and Huttonians!"

We give the preceding with a view in part to solicit the indulgence of the reader, should our Journal, (as it doubtless will,) exhibit opposite theories and clashing opinions. Light is often elicited by the collision of opaque bodies, and the publication of erroneous theories, will sometimes lead to their refutation and the consequent development of important principles in science, and the discovery of useful processes in art.

Notwithstanding, however, the difference of opinion, and mutable practices of modern agriculturists, Agriculture on the whole is rapidly improving. Mr. Lowell, observes, "We undertake to say, that thirty years since it would have been believed impossible to raise, as Mr. Hume well of Newton did 112 bushels of Indian Corn to an acre—and I distinctly recollect that when the first accounts in the Bath agricultural papers reached us that they had raised 500 and even 900 bushels of potatoes per acre, it was deemed, if not a fable, yet an experiment peculiar to Great Britain and its soil and climate and not to be looked for among us."

"Still we have seen that in all parts of our country individuals have succeeded in raising from 450 to 500 bushels per acre of this invaluable root. We have seen that the cultivation of other roots to aid the support of cattle during the winter has advanced much faster with us, considering the late period in which we undertook it than in any part of Europe. We hear, not occasionally but constantly, every year, of 600 or 700 bushels of Mangel Wurtzel, or the white beet—of 500 bushels of the Ruta baga or Swedish turnip per acre, and our cattle are and must be of course better fed, and eventually highly improved."

The improvements in the different breeds of cattle, which have been the results of modern husbandry are not less remarkable than the increase of crops. A friend has informed us that "In the Picture of London, for the present year, it is stated, that about the year 1700, the average weight of oxen, killed for the London market was 370 lbs; of calves 50 lbs; of sheep 23 lbs; and of lambs 18 lbs. The average weight at present is, of oxen 600 lbs; calves 140 lbs; sheep 80 lbs; and lambs 50." Could a comparison be made between the present average weight of cattle and sheep, sold in our market, and the average weight of the same sorts sold 40 years since, we believe the improvement would be visible and striking. Still, much remains to be learned in the art of breeding and fattening cattle, and every step facilitates further progress to a degree of ultimate perfection of which at present we form no adequate idea.

The writer of the article alluded to is of opinion that it is better economy to plant at least middle sized potatoes, or cut potatoes, equal in size to those than either to use for planting small potatoes, or to cut the large potatoes into small parts, to scoop out the eyes, or take only the sprouts. The Hon. Josiah Quincy in a letter, published in the Massachusetts Agricultural Re-

pository, vol. v. p. 64, give the details of an experiment with cut potatoes, and whole potatoes planted in the same field, in adjoining rows, which resulted greatly in favor of the whole potatoes. In this case it appears that fact and theory coincide, for, as Mr. Lowell well observes "the potatoe is by nature formed to furnish from its fleshy and watery root the food for the young shoots." It is doubtless the juice of the planted potatoe which enables the young plant to endure early drought better than most other articles of field culture, while a late drought, which assails them after the paternal root has parted with its supply of nourishment proves very injurious to the crop.

Advertising incidentally to Hedge Fences, Mr. Lowell has the following remarks:

"When the Hon. Mr. Quincy published his experiments on Hedge planting for fences they [the Trustees] were aware that it would not be of much value except on farms destitute like his of natural materials for stone walls. In the sandy territory of the old Colony it may be of extensive use, but on farms such as I know, where the rocks must be got out before the plough can move; where they must be carted to a great distance if not used for walls, where, in short, walls are the cheapest mode of disposing of the stones, it is excellent husbandry so to apply them."

"In relation to the species of thorn recommended by Mr. Quincy, truth and long experiment enable and require me to say, that the Virginia thorn so much recommended by Mr. Maine, from whose account Mr. Quincy very properly introduced and recommended it, is not by any means the best adapted for general use, for quick or live hedges. It is too apt to run up, and not sufficiently prone to throw out strong lateral shoots, and it is believed, that either the common White Hawthorn of England, or even our own New England Cockspur thorn is better adapted for this purpose. We make these remarks not with a view of diminishing the merit of Mr. Quincy in making these experiments, and communicating them, but simply to make it known, that what we publish is intended merely as hints which others may follow or pursue, and we feel bound to state from time to time, any doubts which may occur to us on the subject, or any opposite experience.

"We have been more free in speaking of the limited extent to which thorn hedges can be carried in the stony and rocky country of New England, and the defects of the variety of the thorn first introduced because we are ready to say, and say it cordially, that we think all that portion of our country, which resembles the estate of Mr. Quincy, such as a part of Essex, Middlesex, Plymouth, Bristol, and some of the lands on Connecticut river will finally derive great benefit from the introduction of live fences. They are yet in their infancy, and to Mr. Quincy we owe their introduction. It will be many years before they will be extensively used, but they will we presume eventually be introduced in all countries where stones cannot be found, and he will I trust have the credit of introducing them, a credit which will increase as they shall be extended. They are very beautiful. They give an air of cultivation to the landscape—they shelter the crops, and produce a general effect of which no man, who has not seen the difference between French and English scenery can have any adequate conception."

(TO BE CONTINUED.)

From the Mass. Agricultural Repository for June.

Comparison of the present with some past seasons.

We have for several years published such a comparison, and farmers and general readers having expressed a certain degree of pleasure from the statement we continue it. It certainly may be made of some use, if cultivators, instead of consulting the Almanack, will attend to the indications of nature. Certain plants will not flower till the earth has arrived at a given degree of temperature.

They vary from five to twenty days in the time of flowering in different seasons. If, therefore, as to the tenderer plants, the Indian corn, squash, pumpkin and melon, we should resolve to plant them, not at a determinate period of the year, but when we should find by the flowering of certain plants, that the soil is so warm as to endanger their rotting in the earth, we think some good would be attained.

We shall take a few plants as a specimen, and compare the present season with some of the earliest during the last nine years.

The Cherry opened its blossoms in 1813, May 10th—1815, May 10th—1816, May 6th—1818, May 17th—1820, May 2d—1822, May 1st.

Asparagus was fit for the table for the first time in 1813, May 14th—1815, May 6th—1816, May 5th—1818, May 15—1820, May 1st—1822, May 1st. It should be remarked that the Asparagus was cut from the same bed in each year—a bed was planted 33 years since, and never changed, and one which has been constantly growing better—an important fact in horticulture.

Plums were first in flower in the year 1815, May 14th—1817, May 7th—1819, May 13th—1821, May 11th—1822, May 4th.

Pears began to blow for the first time in 1813, May 20th—1815, May 12th—1817, May 7th—1819, May 17th—1820, May 9th—1822, May 5th.

Apples first showed their open flowers, in 1813, May 23d—1816, May 13th—1817, May 12th—1819, May 19th—1820, May 11th—1822, May 9th.

It will be seen by this table, that the present season is the earliest on the whole which we have had for nine years.

There is, however, a manifest difference between the relative times of flowering of the different plants in the several years; and this is readily accounted for by the circumstance, that a single turn of cold weather will check the progress of all plants, and the season which may have produced the earliest flowers on the Apricot, the earliest of our fruits, may not be earlier than usual in producing flowers on the Apple.

To give one practical rule which we believe may be of some use, we should say, that when the Apple tree flowers we may safely (be it sooner or later) venture to put our corn, squashes and melons into the earth.

This season was the earliest as to the opening of the ground known on my place for 16 years. I planted potatoes and peas on the 7th of March, fifteen days earlier than I was ever able to do it before—but as I have often before remarked, all these differences disappear as the season advances, and on the whole I doubt whether the present season is in advance more than four or five days of that of common years. It however has been a great relief to the labor of the farmer—his season of labor has been ex-

tended this year at least three weeks in this vicinity, and this is of great value to him. The show of blossoms in all kinds of fruit is very good, nearly double to that of the last year.—The present cool weather is highly beneficial to the fruit. We had a very severe frost on the 6th inst. which in low grounds injured early potatoes, but the damage on the whole was not great. If we can escape another for one week more, we may presume on a fruitful year. The prospect of grass is at this moment above that of ordinary years.

A ROXBURY FARMER.

From the New England Galaxy.

JUDGE QUINCY'S FARM.—We have heard that Mr. Quincy was a practical as well as theoretical farmer, and it is well known that his talents have been industriously employed in raising the standard of agricultural excellence in the neighborhood of Boston, but we do not recollect to have seen any description of his farm, or his mode of cultivating it, till the following, for which we are indebted to Mr. Stone's "Extracts from a Gentleman's Port Folio."

Judge Quincy, in addition to his professional duties, is a theoretical and practical farmer; and I have taken the liberty of introducing the name of this distinguished gentleman because there is a part of his system which was entirely novel to me, and which I think should be more extensively known, as I feel persuaded that many of our agriculturalists may profit by it. His farm is extensive and surrounded by a flourishing hawthorn hedge; but there is not an interior fence on the premises. The whole presents a single field, devoted to all the various purposes of agriculture. No part of it is allotted to pasture, as his cattle are fed in their stalls, and never suffered to run in the field. The advantages of this system are thus given: Formerly there were seven miles of interior fences to be kept in repair, and by keeping the cattle up, the whole of this expense is saved. Formerly sixty acres of this farm, were devoted to pasturage; but now a greater number of cattle by one third, are kept upon the products of twenty acres; and I never saw cattle in better case. The saving by this means is enormous, and that immense advantages arise from it, is too apparent to be dwelt upon. During the summer the cattle are fed upon grass, green oats or barley, cut up the day previously, and suffered to wilt in the sun; and the manure, which is thus saved, will more than pay for the extra trouble and expense. The farm is highly cultivated, and every kind of grain and vegetables grown in the country, appeared to have a place. The cultivation of carrots it was said was found very profitable, and, I passed a lot of five acres.—Near this were also several acres of cabbages, ruta бага, mangel wurtzel, millet, &c. &c.—Judge Q. has also an extensive salt manufactory, of 175 cisterns or vats, which, however, he contemplates soon to enlarge. The salt water is pumped by wind, and is let off from one vat to another—first depositing the sediment, and then the sulphate or carbonate of lime, until it becomes pure, when it is suffered to stand and evaporate by the heat of the sun. The crystallizations, form on the top and settle to the bottom. I have preserved a beautiful specimen. One man attends the whole of this concern.—The residence of Judge Q. is a charming situation. The house is a neat and spacious building, and the grounds, varied in surface and scen-

ery, tastefully laid out and richly adorned. It is agreeable to perceive gentlemen of such distinguished talents and literary attainments, toiling thus to promote the real interests of the country, and affording practical proofs, that the pursuits of agriculture are neither servile nor derogatory.

From the Hampshire Gazette.

Sweet Corn.—A writer in the Plymouth paper asserts that sweet corn was not known in New England, until a gentleman of that place, who was in Gen. Sullivan's expedition against the Indians in 1779, brought a few ears to Plymouth, which he found among the Indians on the borders of the Susquehanna. This writer says that if the ears are picked from the stalks for seed, the produce will assimilate to our common corn, but if the seed ears be selected from the suckers, the corn will not lose its peculiar qualities.

Cotton.—Several experiments are now making in New York and Connecticut, to ascertain whether cotton can be raised in this northern climate. Some plants in Albany are now in blossom.

A Cosmetic for ladies' complexions, said to be superior to all other washes.—Put over the fire a pint of water, and when it boils stir in fine Indian meal enough to make it a paste; let the ladies use this paste instead of soap every time they wash themselves. If a spoonful of honey and a little rose water are stirred into it when cooling, it will be still better.

Lightning.—Wet clothes are good conductors of lightning, and if a flash in its way to the ground, should strike a person's head, whose clothes are wet, it will run in the wet clothes over the surface of the body, whereas if the clothes were dry, it would go through the body and occasion death.

It is stated in a London paper of 30th May, that among the rewards presented the day before by the society for the encouragement of manufactures, &c. was "the large silver medal and twenty guineas," to Mrs. Wells, of Weathersfield, Conn. for her imitation Leghorns.

From the Boston Gazette.

Copperas water is a cheap and certain destruction to bugs, which cannot be too generally known.

It is said, that if horses be rubbed down with chesnut-tree leaves in the morning, they will not be annoyed by flies during the day.

United States' Lead Mines.—A notice from the War Department is published in the western papers, offering to receive proposals, at the office of the Ordnance Department, for leasing any of the lands of the U. States containing mines of lead, upon an annual rent of one tenth of the product of the mines, to be deposited, in pure lead, in a store-house on the ground. The leases not to be for more than three years, and not for a quantity of land to any individual or company, exceeding three hundred and twenty acres, &c. Leases may be renewed at the expiration of three years, at the option of the government, reserving the right to raise the rent, but not to a higher rent than one fifth of the product. The advertisement is dated at the Ordnance Department, June 15th.

From the American Farmer.

SKIPPERS IN BACON, give much trouble to housewives in the country.

It has been discovered, by a female correspondent in the country, from whom we have received several useful communications, that skippers in bacon may be effectually and speedily destroyed by the use of *elder juice*, but the exact manner of preparing and applying it, are not described. This ought always to be done in giving receipts—the field is yet open for numberless useful discoveries in all the departments of rural and domestic economy.

Since writing the above, we have the following more particular account from our esteemed correspondent:

"Last year we lost at least one third of our ham meat, by the skippers, notwithstanding every attention, but never destroyed the skippers while the meat lasted. Our neighbours were, in this respect, as unfortunate as ourselves.

"This spring, knowing that our meat had been well smoked, and the weather being dry, we neglected airing it as customary, until our old enemy the skipper returned, and had eaten it smartly. Sister, who attends to it had it examined, scraped and sunned; (no one can be more particular.) In a week after, she had it examined and found that there were nearly as many skippers as at first: you may suppose, after the loss we suffered last year, we were very anxious to destroy this troublesome insect. I had known for many years, that elder juice would destroy maggots. If a hog, sheep, or any other animal gets wounded, and the flies get to the wound, they will create maggots; by washing the wound with elder juice, they will roll out by hundreds, if there be so many in it. I proposed therefore to try it on our bacon. The leaves were accordingly beat in a mortar, adding a little water; the flesh side of the meat was rubbed with the leaves thus bruised, and in three weeks after, the meat was re-examined, and the skippers utterly destroyed. The application here described, does not in the least degree communicate any bad taste to the meat. I have little doubt, that this, with many other simple applications within the reach of every housekeeper, might be applied to many other useful purposes, if proper pains were taken to make the trial. If such homely communications, on such homely subjects, are admissible in the *American Farmer*, you can publish what I have written, as you know you can depend on its accuracy, and I shall be amply paid for my trouble by what I know I shall receive, the thanks of many

A HOUSEKEEPER.

We believe that the virtues of elder are less known and appreciated than they ought to be. Mr. Deane's Geographical Dictionary states that Christopher Gullet, Esq. had made some experiments, which were communicated to the Royal Society, of which the following is a brief account:

"He whipt cabbages gently with green boughs of elder, just at the time when the butterflies appeared, after which, though they hovered over them, they were never observed to touch them. He whipt the limbs of a plumb tree as high as he could reach. That part remained green and flourishing; but all above shrivelled up, and was full of worms. He concluded that if a tree were sprinkled with an infusion of elder, once a week or fortnight, it would effectually preserve it without injuring the tree or the fruit. He prevented the yellows in wheat, which is caused by an insect, by

brushing the wheat with elder; and preserved a bed of young cauliflowers. He prefers the dwarf elder as it emits the strongest effluvium.

"Perhaps, it may be found, as this writer suggests, to preserve turnips from the fly, and these and other plants from grasshoppers and all other insects."

A friend of the Editor, stated to us that he had used an infusion of elder leaves as a preservative against the small yellowish bugs, which infest cucumber vines, squash vines, &c. and he believes with complete success, as the bugs ceased to devour the plants from the time the infusion was applied. It was rather late in the season, however, before the application was made, and it is possible that the bugs had finished their year's work of mischief before they were disturbed by the elder infusion. We hope that further trials will be made.

Carelessness.—Negligent masters and mistresses are considered as lawful prey by their domestics; and those who are proverbially easy in the management of pecuniary and economical concerns, are at once cheated and despised for a disposition, which, however it may engage the affection and esteem of candid and enlightened characters, seldom fails to excite the rapacity of those who are possessed of

That low cunning, which in fools supplies,
And amply too, the place of being wise.

A man who had been a zealous partizan, in politics, but had shifted his course so often that he sometimes strayed so far from the lines of demarcation which separated one party from another that he could not always say which side he belonged to, was asked, what made him turn his coat so often? He replied that "one good turn deserves another."

Gunpowder and Brandy.—An office in the government of Satan, being once upon a time vacant, "the prince of the power of the air," convened a counsel, when it was proposed, that on the trial of the skill and abilities of the two demons, he who caused the most misery on earth and brought the greatest number of mortals to the regions of despair, should fill the vacant office and be first in authority.

One went in the shape of *Gunpowder*, the other that of *brandy, rum, gin, &c.* the former was an open enemy and roared with a terrible noise. This made the folks to be afraid, and put them on their guard. But the other passed as a friend and a physician, pretended to make them strong and healthy, was at all the merry makings, frolics and entertainments. By these means he caused them to be off their guard; and at length to become his most willing servants, and that too, "for the wages of death." Under the "notion" of helping digestion, comforting the spirits, and cheering the heart, he produced the direct contrary effects.—And, having insensibly thrown great numbers into a fatal decay, he was found to people hell and the grave so fast, as to merit the office, in preference to him who went among the people in the shape of gunpowder.

Last week a young man with a slight obstruction in his speech, came into our office to purchase a book—the price happening to be a few pence beyond his means, we told him we would furnish him with a copy a little torn. Not finding one, however, as we expected, he very honestly remarked, that "we might t-t tear another." The joke was certainly worth something, and we instantly furnished him with a whole copy.—*Nantucket Inquirer.*

BREAD.

There is, perhaps, no subject connected with Domestic Economy of more importance than the manufacture of Bread. We have therefore thought it might prove acceptable to our readers to present them with some recipes for composing the *Staff of Life*; and should any of our friends or patrons be in possession of any better methods of answering the same purpose, they will oblige us, and, we hope, do the public a service by communicating them for publication in our paper.

I. To a peck of flour add a handful of salt, a pint of yeast, and three quarts of water: the whole, being kneaded in a bowl or trough will rise in about an hour; it is then moulded into loaves, and put into the oven. For French bread, they take half a bushel of fine flour, ten eggs, and a pound and a half of fresh butter, into which they put the same quantity of yeast, and tempering the whole mass with new milk pretty hot, leave it half an hour to rise, after which they make it into loaves or rolls, and wash it over with an egg beaten with milk: care is taken that the oven be not too hot.

II. Potatoes, mixed in various quantities with flour, make a wholesome, nutritive, and pleasant bread. Klogg, who has been styled the rustic Socrates, recommends, that potatoes well boiled and carefully peeled, should be put into a kneading trough, covered with boiling water, and bruised till they be converted into a kind of soup of equal consistence throughout. A half, a third, or a fourth, of this soup, mixed with the flour of wheat, makes a bread of an excellent taste, and extremely salutary and nutritive.

III. M. Dudit de Maizieres, a French officer of the king's household, invented and practised with the greatest success, a method of making bread of common apples, very far superior to potatoe bread. After having boiled one third of peeled apples, he bruised them while quite warm, into two thirds of flour, including the quantity of leaven, and kneaded the whole without water, the juice of the fruit being quite sufficient. When this mixture had acquired the consistency of paste, he put it into a vessel in which he allowed it to rise for about twelve hours. By this process he obtained a very sweet bread, full of eyes, and extremely light.

IV. At Debritzin, in Hungary, excellent bread is made by the following process without yeast: Two large handfuls of hops are boiled in four quarts of water; this is poured upon as much wheaten bran as it will moisten, and to this are added four or five pounds of leaven. When the mass is warm, the several ingredients are worked together till well mixed. It is then deposited in a warm place for twenty four hours, and afterwards divided into small pieces about the size of a hen's egg, which are dried by being placed upon a board, and exposed to a dry air, but not to the sun; when dry they are laid up for use, and may be kept half a year. The ferment, thus prepared, is applied in the following manner: For baking six large loaves, six good handfuls of these balls are dissolved in seven or eight quarts of warm water; this water is poured through a sieve into one end of the bread trough, and after it three quarts of warm water; the remaining mass being well pressed out. The liquor is mixed with flour, sufficient to form a mass of the size of a large loaf; this is strewed over with flour; the sieve

with its contents, is put upon it, and the whole is covered up warm, and left till it has risen enough, and its surface has begun to crack: this forms the leaven. Fifteen quarts of warm water, in which six handfuls of salt have been dissolved, are then poured upon it through the sieve; the necessary quantity of flour is added, and mixed and kneaded with the leaven; this is covered up warm, and left for about half an hour; it is then formed into loaves, which are kept for another half hour in a warm room; and after that they are put into an oven, where they remain two or three hours, according to their size. One great advantage attends this kind of ferment, that it may be made in large quantities at a time, and kept for use; and, on this account, it might be convenient on board of ships, or in camps for armies in the field.

V. The carbonate of magnesia, [common magnesia of the shops] when well mixed with new flour, in the proportion of from 20 to 40 grains to a pound of flour materially improves it for the purpose of making bread. Loaves, made with the addition of the carbonate of magnesia rise well in the oven; and after being baked the bread is light and spongy, has a good taste, and keeps well. In cases where the new flour is of an indifferent quality from 20 to 30 grains of magnesia to a pound of flour will considerably improve the bread. When the flour is of the worst quality 40 grains to a pound of flour is necessary to produce the same effect. As the improvement of the bread depends upon the magnesia, it is necessary that care should be taken to mix it intimately with the flour previous to making the dough. A pound of carbonate of magnesia would be sufficient to mix with two hundred and fifty six pounds of new flour at the rate of 30 grains to a pound.

VI. To every five pounds of flour add one pound of rice that has been previously boiled to a jelly over a slow fire; then, when luke warm, add your usual quantity of yeast, and make up your bread. Should you judge your jelly to be too thick add luke warm water; a method by which thirty pounds of flour and six of rice produce eighteen loaves, each four pounds and an half weight. Five pounds of flour produce eight pounds of bread; but with the addition of a pound of rice twelve and an half.

VII. In order to make bread of turnips the following method is recommended in the "*Musaeum rusticum commerciale*," an English work. When turnips are plentiful, a number of them should be pulled, washed clean, pared and boiled. When they are soft enough for being mashed, the greatest part of the water should be pressed out of them, and they should then be mixed with an equal quantity in weight of coarse wheat meal. The dough may then be made in the usual manner, with yeast or barm, salt, water, &c. It will rise well in the trough; and after being well kneaded, it may be formed into loaves, and put into the oven to be baked. The person who made this experiment had other bread made with common meal in the ordinary method. The turnip bread was baked rather longer than the other. When they were drawn from the oven, a loaf of each sort was cut; and upon examination, the turnip bread was sweeter than the other, not less light and white, with a slight, but not disagreeable taste of the turnip. When it was tasted twelve

hours after, this taste was scarcely perceptible, and the smell was quite gone off. After an interval of twenty-four hours, it could not be known that it had any turnips in its composition, although it still had a peculiar sweetish taste. After twenty-four hours, it appeared to be rather superior to bread made only of wheat flour; it was fresher and moister; and after a week it was still very good.

VIII. When wheat has grown or germinated, before it is ground, as often happens in wet seasons, magnesia, soda or some other alkaline substance seems indispensable to make good bread. An English writer in the *Lancaster Gazette*, 1816, mentions his having tried the following mixtures with flour from wheat which had germinated, which, if used without the alkali took twice the usual time, and when baked became a hard thick crust, elevated like a roof over a glutinous saccharine paste, the specific gravity of which was greater than water.

1st. Take new flour, two pounds; soda two drachms.

2d. Take new flour, two pounds; soda one drachm.

3d. Take new flour, three pounds; old do. one pound; soda two drachms.

4th. Take new flour, three pounds; old do. one pound; ground rice, half a pound; soda two drachms.

5th. Take new flour, two pounds; old do. one pound and an half; soda one drachm.

The soda was dissolved in the water in which the flour was to be mixed, and the yeast added in the usual way.

RESULTS.

Nos. 1 and 2 were pleasant tasted bread, similar to brown bread; it was *friable*, very buoyant in water, and filled like a sponge; it gained nearly *one third*, but No. 2 was better bread than No. 1; and this is well worth attending to, since it proves that with this flour half the quantity of soda produced the best effect, a circumstance that is of importance in an economical point of view.

No. 3 was better bread than Nos. 1 and 2, and it was but little inferior to the bread procured from our old flour, when the alkali was not used.

No. 4 was heavier than the preceding, but was baked in a tin pan.

No. 5 was also baked in a tin; it was as good bread as that made wholly with the old flour; but it was not very easy to distinguish Nos. 3, 4 and 5, from each other.

From these experiments it appears that by thirty grains of soda, a pound of the new flour, which as loaf bread would not otherwise be eatable, will make about a pound and an half of very pleasant tasted wholesome loaf bread.

REMARKS ON THE FOREGOING.

The four first of the foregoing recipes were taken from the *Edinburgh Encyclopedia*. The fifth has been proved by an experiment made within the knowledge of the Editor, to be useful. The sixth, seventh and eighth rest upon newspaper authority only. Perhaps it might be well to mix flour from new, or damaged wheat, with lime water, as a substitute for soda or the other alkaline substances mentioned above. The expense of lime water would be very trifling, as lime requires no less than 700 times its weight of water to effect its entire solution, and a single handful of quick lime thrown into a barrel of water, or any less quantity

which may be wanted, will be sufficient. It will require some hours for lime water, thus prepared, to settle, so as to become sufficiently clear for use, when should be carefully poured from the sediment. We do not pretend to vouch for the efficacy of lime-water thus prepared, and made use of. We merely suggest the thing as worth an experiment.

YEAST.

The following methods of making Yeast have been recommended, but we have never known their efficacy tested by actual experiment.

Take a quantity of hops suitable to the quantity of yeast you intend to make, boil them well, and strain off the water in which they are boiled; into this water stir a suitable quantity of flour, and considerable salt, and then add to this proportionate quantity of good yeast; let this mass rise as much as it will; then stir in fine Indian meal till it is so thick that it can be made into small cakes of the size of a dollar or larger. When the cakes are thus made, dry them in the sun till they are hard, minding to turn them frequently to prevent their moulding, and then use them by, in a dry place, for use.

When you wish to have yeast, take one of these cakes, crumble it to pieces, pour warm water on it, and let it stand in a warm place, and it will soon rise sufficiently to make good yeast. A quantity of these cakes may be thus made at once, which will last for six months or more.

Art of making Yeast with Peas in Persia.

Take a small tea cup or wine glass full of it or bruised peas, pour on them a pint of boiling water, and set the whole in a vessel all night on the hearth, or in any other warm place; this water will be a good yeast, and give a froth on its top the next morning. In a cold climate, especially in a cold season, it would stand longer to ferment; perhaps twenty or forty-eight hours. The above quantity, says Mr. Eaton, made for me as much bread as half a quarter loaf, the quality of which was very good and light. It may be necessary that, in this country in winter it should be put to ferment in a coal oven.

Substitute for Yeast.

A patent was granted, in England, to Mr. Richard Lyster Blunt for his new invented composition to be used instead of Yeast. The substance of the specification, according to the Repertory of Arts, is as follows: To make a yeast gallon of the above mentioned composition, containing eight beer quarts, add in common water eight pounds of potatoes for eating; bruise them perfectly smooth, and mix with them whilst warm, two ounces of treacle, or any other sweet substance, and one quart (being the eighth part of a gallon of yeast) of common yeast. And, for making bread, mix three beer pints of the above composition with a bushel of flour, using warm water in making the bread; the water to be warmer in winter, and the composition to be used in a few hours after it is made; and as soon as the sponge (the structure of the composition with the flour) begins to fall the first time, the bread should be made, and put into the oven.

MUSQUETOEES.

To prevent the bite of Musquetoes, rub the face of pennyroyal, a little weakened on the hands and face.

FACTS AND OBSERVATIONS RELATING TO Agriculture and Domestic Economy.

Under this head, we propose, from time to time, to publish such articles, relating to agriculture and rural economy, as we may be of opinion will prove useful. Some of our statements will not, probably, be new to many of our readers, and others, perhaps, will not be found correct. But those to whom our observations may not convey new ideas, will, we hope, endure them for the sake of the benefits which may accrue to such persons as are destitute of the information they contain, which will be in part derived from writers of acknowledged merit and standard authority. Should our assertions or theories be found erroneous, we should be happy to stand corrected by our friends and correspondents. Our statements may, at least, suggest hints and processes which may lead to valuable improvements. And, as happily expressed in the last No. of the Massachusetts Agricultural Repository, "the cautious farmer, if he is struck with their novelty, may try them for himself. If they are found to fail, he will not repeat the experiment, but he will be very careful to inquire, whether he has faithfully followed the instructions of the first essayist. Whether the soil was the same as that in which the experiment was made, and whether he has taken the same pains to produce the proposed result. If he is satisfied that he has so done, and that the novelty recommended is not entitled to his confidence, he will abandon it."

POTATOES

May be spoiled by bad management in harvesting. They should be dug in cool overcast weather, and picked immediately after the hoe free from sun and air, and kept moist with much dirt about them. If dug in fine weather, and they remain exposed to the sun, they will sweat in the summer, and be soft, waxy and strong. By lying to dry in the sun, they turn green, become in a degree poisonous, operate as physic of a purgative nature, and, it is said, sometimes prove fatal.

In gathering a crop of potatoes it has been recommended to run furrows on each side of the rows, and then a pretty deep one in the middle, which turns up most of the roots to the surface. A fork, with four prongs, with the addition of what may be called a fulcrum, fastened by a pivot to the back part of the handle may be used for raising the potatoes, not turned by the plough.

In the report on the agriculture of the county of Hereford, drawn up for the British Board of Agriculture, is a description of an excellent implement, invented by Mr. Yeldall, for taking up potatoes, having four prongs, or barbs of iron, with a fang, in the form of a double mould board, drawn by three horses or four oxen. It enters the ground, under the bed of potatoes, and throws them to the surface.

In feeding stock on potatoes it is best to steam, boil, or bake them. Sir John Sinclair, a famous English Agriculturist, (who, we believe, has corresponded with Gen. Washington on subjects of rural economy,) in his celebrated Code of Agriculture, asserts, that "there is something injurious in the juice of the potatoe in a raw state, which cooking eradicates, or greatly dispels."

We have, however, heard it asserted by farmers that raw potatoes, given, in moderate quantities to working oxen in the spring of the year answer a valuable purpose. They are

said to prove cooling, and opening, and serve at once for food and physic. Where cattle are fed in part on Indian corn or meal, which is in some degree astringent and heating, raw potatoes given occasionally, we have been told, promote the health, and add to the appetite of the animals.

The Farmer's Assistant says, "We never should advise to feed milch-cows with potatoes, either boiled or raw; as we have frequently known cows to be greatly lessened in their quantity of milk, by being fed on this root."

POULTRY.

Mr. Wakefield, a spirited farmer near Liverpool, says the compilers of "The Complete Grazer," keeps a large stock of poultry in the same enclosure with singular success. He has nearly an acre enclosed with a close slab fence, about seven feet high. The top of the fence is every where sharp pointed like pickets, though, perhaps, this may not be necessary. Within this enclosure are put up slight small sheds, well secured from rain, however, for the different kinds of poultry, and it is supplied with a small stream of water. The poultry are regularly fed three times a day with boiled potatoes, which is their only food, except what grass may grow within the enclosure.

The dung of the poultry, which is exceedingly rich, is carefully saved for use; and the turf of the enclosure is occasionally pared off for mixing with composts.

We have heard it asserted that a little molasses, or any other saccharine substance is very useful to mix with the food of poultry, which it is intended to fatten. Perhaps it might be well to boil a proportion of beets, ripe and sweet pumpkins, or squashes with potatoes, for the food of poultry. When corn is given to fowls it should be crushed or soaked in water. Hens it is said should have access, in winter, to slack-lime, or oyster shells, otherwise they will afford no eggs, as something of the kind is necessary to form the shells. Wheat, however, if given to fowls for food, will afford the substance (phosphate of lime) which is necessary to compose their shells.

BEEES.

Dr. J. Anderson in one of his papers on husbandry observes, in substance, that bees are frequently induced by mild weather in the winter, and early in the spring to leave their hives and by sudden changes to cold or wet become chilled, unable to return, and perish. And when they do not venture abroad, warm weather, out of season, often rouses them from their torpid state and obliges them to consume their stores, and they are then starved with hunger.

To prevent such accidents, Dr. Anderson is of opinion, that "no method would be so effectual as that of placing the hives in an ice house at the approach of winter. Here they may be kept till the spring is so far advanced, that no danger is to be apprehended from bad weather. During the whole winter they will remain in a state of torpor and require no food. As soon as the mild weather invites them to appear, they will commence their labors with vigor. The intense degree of cold which bees sustain without the least injury in Poland and Russia, where even quicksilver is sometimes frozen, removes every doubt or anxiety, concerning the safety of bees in an ice house."

We do not know that any thing has ever been attempted to ascertain the correctness of Dr. Anderson's theory, but wish that some person would try the experiment, and give the result to the public.

STUBBLE.—BURNING OF.

Mr. W. CURTIS, of Lynn, Norfolk, found very beneficial effects from burning the stubble of oats, which was left eighteen inches high for this purpose, on a field broken up from old pasture the same year; he afterwards sowed wheat and oats in succession on the same ground, the stubble of both of which was burned in the same manner. The ashes were in every case ploughed in to a small depth, and the verges of the field mowed previous to the burning, to prevent accidents. After the third crop of corn, all of which were abundant and remarkably free from weeds, the field was laid down with clover and grass seeds, and the ensuing crops of both hay and grass proved infinitely finer than those before the ground was broken up.

Another piece of land was cropped for three successive years in the same manner as the first, to which it was similar in every respect of soil, aspect, and previous management, but in which the stubble was ploughed in, instead of being burned; the produce of each crop on it was much inferior to that of the first experiment, and the weeds increased so greatly, that on laying it down to grass, they overpowered the grass seeds so much that it was necessary to re-sow it; and ever after, while Mr. Curtis held it, the grass and hay produced were coarse and full of weeds, and consequently inferior both in value and quantity to those of the other field, on which the stubble had been burned.

In burning stubble, the danger which is to be apprehended from the spreading of the flames, may perhaps be obviated by tracing a furrow round the field, and setting fire to the stubble on the inner edge of the furrow.

We were furnished with the following receipt by a lady, a pattern of industry and all domestic virtues, at whose table we have drank this wine in great perfection. It is desirable that wine, and beer, and cider should take the place, as far as possible, of ardent spirits, the extravagant use of which has already become the scourge of this young country. It is, therefore, to be wished, that every thing which can increase the means or throw light on the manner of making these simple and wholesome beverages, should be made known for public benefit; and we shall feel much obliged for all information on such matters. The receipt is copied from "Cary's American Museum," for July.

American Farmer.

RECEIPT FOR MAKING CUBRANT WINE.

Gather your currants when full ripe; break them well in a tub or vat, (some have a mill constructed for the purpose, consisting of a hopper, fixed upon two lignumvitæ rollers) press and measure your juice, add two thirds water, and to each gallon of that mixture, (i. e. juice and water) put three pounds of muscovado sugar, (the cleaner and drier the better; very coarse sugar first clarified, will do equally as well,) stir it well till the sugar is quite dissolved, and then turn it up. If you can possibly prevent it, let not your juice stand over night, as it should not ferment before mixture.

Observe that your casks be sweet and clean, such as never had either beer or cider in them, and if new let them be first well seasoned.

Do not fill your casks too full, otherwise they will work out at the bung, which is by no means good for the wine; rather make a proportionable quantity over and above, that after drawing off the wine you may have a sufficiency to fill up the casks. Lay the bung lightly on the hole to prevent the flies &c. from creeping in. In three weeks or a month after making, the bung-hole may be stopped up, leaving only the vent-hole open till it has fully done working, which generally is about the latter end of October. It may then be racked off into other clean casks if you please; but experience seems to favor the letting the wine stand on the lees till spring, as it thereby attains a stronger body, and is by that means in a great measure divested of that sweet luscious taste, peculiar to new made wine; nay, if it is not wanted for present consumption, it may without any damage stand two years on the lees.

When you draw off the wine, bore a hole, an inch at least above the tap-hole, a little to the side of it, that it may run clear off the lees.—The lees may either be distilled, which will yield a fine spirit, or filtered through an Hippocrates' sleeve and returned again into the cask. Some put in the spirit, but I think it not advisable.

Do not suffer yourself to be prevailed on to add more than one third juice as above prescribed, in hopes that the wine may be richer, for that would render it infallibly hard and unpleasant, nor yet a greater proportion of sugar, as it would certainly deprive it of its pure vinous taste.

By this management you may have wine, letting it have a proper age, equal to Madeira, at least superior to most wines, commonly imported, and for much less money.

In regard to the quantity of wine intended to be made, take this example, remembering that twelve pounds of sugar are equal to a gallon of liquid.

For instance, suppose you intend to make 30 gallons, then there must be,

8 gallons of juice.	24 gallons of mixture,
16 of water,	3 multiplied by,
—	—
24 gallons of mixture,	12)72
6 gals. from sugar.	equal to 6 gallons of
—	liquid.
30 gallons.	

and so proportionably for any quantity you please to make.

The common cider presses, if thoroughly clean will do well in making large quantities: the small hand-screw press is most convenient for such as make less.

N. B. An extraordinary good spirit for medicinal and other uses, may be distilled from currant juice by adding a quart of molasses to a gallon of juice, to give a proper fermentation.

American Isinglass.—A manufactory of this useful article has been established at Cape Ann, by Mr. Wm. Hall, late of this city. The material for manufacture is obtained from fish taken from our coasts. The specimens of isinglass manufactured at Cape Ann have been used by the brewers and confectioners in our city, who considered it fully equal if not superior to the imported.—*Boston Post.*

NEW ENGLAND FARMER.

BOSTON:—SATURDAY, AUGUST 3, 1822.

TO THE PUBLIC.

It was well observed by an eminent philosopher that "the excellency of manufactures, and the facility of labor would be much promoted if the various expedients and contrivances, which lie concealed in private hands, were, by reciprocal communications, made generally known. There are few operations that are not performed by one or other with some peculiar advantages, which, though singly of little importance, would by conjunction and concurrence, open new inlets to knowledge, and give new powers to diligence." The remarks will apply with as much force to Agriculture as to manufactures. One great and primary object of the "*New England Farmer*," is to serve as a vehicle for "reciprocal communications" of such improvement in husbandry, or domestic economy, as may add stimulus to industry, by insuring to diligence that reward which alone waits on well directed effort. The Proprietor would, therefore, be happy to receive useful hints, statements and essays, oral, written or printed, relative to the objects of his paper, as mentioned above, and more particularly unfolded in the first article of the preceding pages, from persons whose experience, reasoning or observation qualify them to furnish useful information to the community.

It is hoped that no practical farmer will be deterred from forwarding to us for publication any information of the above description from an apprehension lest style should prove deficient in any of the requisites what is called fine writing. All we wish for is that should make his meaning understood, which may be done as well, or better, by plain words and common phrases, than by a pompous diction, consisting of words of "learned length and thundering sound." If a literal correction should be deemed necessary to fit a matter for the press, which we may receive from correspondents, it will be cheerfully rendered by the Editor.

The Proprietor will spare neither pains nor expense to make his paper worthy of public patronage. He proposes, from time to time, to give engravings of improved breeds of animals, agricultural implements, patented machines for facilitating processes in the useful arts, particularly those connected with Agriculture and Domestic Economy.

At the termination of each year from the commencement of the paper, will be given a copious and correct index of the volume preceding.

The Proprietor authorizes and requests all Post Masters to receive subscriptions for the *New England Farmer*, according to the terms stated in the first page of this day's paper, and retain ten per cent. on the amount which they may collect.

We have taken the liberty to forward the first number of the *New England Farmer* to some gentlemen whose names happened to occur to us, although they are not on our subscription list. Should they approve of this specimen of our work, and the plan as developed in this and the initial articles, we hope they will afford us their patronage, and assist in extending the circulation of the paper by such means as they may deem adapted to that effect.

It was stated in our Prospectus that the *New England Farmer* would be printed on a "large royal sheet." It has since been thought best to issue it on a sheet of smaller size, but of superior quality. The price of the paper now used is the same as that which we originally proposed printing it. We are confident our patrons will be satisfied with the alteration.

FOREIGN SUMMARY.

Intelligence from London as late as the 13th of June has been received by the ship *Nestor*, arrived in New York from Liverpool. A London article of that date firms that advices had been received from Constantinople to the 11th May, confirming the pacific news of the evacuation of Moldavia and Wallachia by the Turkish troops. Russian vessels were clearing at Odessa for Constantinople; and several vessels have been insured at Lloyd's from capture or seizure by the Turks, at one per cent.

It appears that the unfortunate Greeks are still suffering all that the most savage ferocity can inflict under the domination of the Musselmans. Two French gentlemen, visiting the island of Scio, represented the town as pillaged and destroyed, and the streets filled with the festering remains of the butchered inhabitants. The women and children were articles of commerce, both at Constantinople and Smyrna. The Turkish fleet was to sail from Scio about the 3d of May, which gives little hopes of their having been defeated by the Greeks.

The Belgrade accounts are very unfavorable to the Greeks. The Pacha of Salonichi had received reinforcements, and defeated the Greeks. After this he laid upon thirty Greek villages, and carried away the women and children as slaves.

The King of France, in reply to the Address of the Chamber of Peers says, "since the opening of the session I have received accounts which assure that peace will not be disturbed in the East."

It is stated that the accounts received from the South and West of Ireland continue more and more deplorable. The assistance given to the poor has been extremely liberal; but their wants exceed the donations. Dublin paper states that "a million of men, women and children are starving—are actually dying of hunger, and in one of the finest seasons ever remembered; malignant fever, with every appearance of the worst symptoms of pestilence has set in."

The recognition of the Independence of the South American nations, by the United States, has been received in Spain; but no measures have been taken on a subject.

The bill for throwing open the West India Islands to the trade of all nations had passed the House of Commons, been read a first time in the House of Lords, and is said will become a law.

As an illustration of the singular character of the winter, it may be mentioned, that while the thermometer was some degrees above the freezing point in Russia and Sweden, they were skating and driving in ice at Madrid through the whole of January, and several persons were frozen to death in the streets of Lisbon.

The last accounts from Spain, which are to the 31st June, indicate a crazed and unsettled state of society.

Troops of partisans are in arms against the government. These insurgents who style themselves royalists, are commonly headed by priests or monks, and their banners were inscribed, "*The King and the Cross*." They have been often defeated, but rise from every overthrow with apparently renovated strength and fresh exertions. The Cortes were in session, but were said to be perplexed, bewildered and wavering in their councils. They had fixed the standing army in 1822, at 62,043 men.

The Cortes have issued a Manifesto on South American affairs, in which they invoke the Powers of Europe to recognize the Independence of the New States of South America.

A duel was fought in Paris, in the beginning of June, between two members of the Chamber of Deputies, Benjamin Constant and Forbin des Isarts. They were attended by two seconds each. The former being lame, and unable to stand, they were both provided with chairs, and in that way exchanged two shots without effect; when the seconds interfered.

At a splendid levee held by the King of England, on the 12th of June, Mr. Washington Irving was presented by the American Ambassador.

DOMESTIC SUMMARY.

Slaves.—The Emperor of Russia has decided the question submitted to him by the U. States and G. Britain, in relation to slaves carried away during the late war by the British—that the U. States are entitled to a just indemnification for all such slaves carried away.

Riot at the State Prison.

On the first inst. there was a formidable insurrection at the State Prison in Charlestown. It commenced by an attack made on one Chadwick, who had rendered himself obnoxious to the prisoners by giving evidence against Green, not long since convicted and executed. It is said that for nearly two hours the rioters had the ascendancy, and were not quelled till after they had set fire to the work shops in the yard, and had been repeatedly fired upon by the guard. A large number of the citizens of Boston and Charlestown were collected, including Fire Companies, and a party of Marines from the Navy Yard. The principal of the riot, and several others were wounded, the former, it is supposed mortally. The culprits were at length driven to their wards and secured.

Negro Plot.—A plot has been formed by the negroes of Charlestown, S. C. to massacre the white people. They formed themselves into a society, and held meetings at a farm, which they could approach by water to avoid being stopped by any patrols. They intended to have provided themselves with passes so as to deceive the guard, and place themselves at certain parts of the city; then a party was to secure the guard at the guard house, and an indiscriminate massacre was to commence on all whites, who appeared in the streets, and particularly to prevent any company from forming.—Also to prevent the bells from ringing to give any alarm. A negro who was solicited to join the gang declined, and gave information to his owners by which means the conspirators were arrested, and some of them condemned to be executed.

Solomon Southwick, Esq. the Editor of the Plough Boy, has been nominated a candidate for Governor of the State of New York, in opposition to Judge Yates. This event took place, says the Albany Argus, at "a very numerous meeting of Republicans," in which the "Capitol was crowded to excess, and the citizens animated by the fire of seventy-six and ninety-eight."

It is reported that another challenge has passed between Col. Cumming and Mr. McDuffie, and that the meeting is fixed for the 10th of August.

A writer in the Boston Centinel of the 31st ult. in remarking on certain recent failures, which have taken place in this city, says that "many of the failures were trifling, many others not unexpected, and that the whole will not effect the stamina of the solvent Emporium of New England commerce."

We have published the official decisions of the American and British Commissioners made under the 6th article of the treaty of Ghent; by which it will be seen, that all the islands in the Niagara river, (except Navy Island) have fallen to the United States. Drummond's Island, in Lake Huron, containing a British post, has also fallen to us. This will serve as an exchange for the military works at Rouse's Point, on Lake Champlain.—*Buffalo Patriot July 16.*

Caution.—Counterfeit bills of five dollars, of the Bank of the United States, are in circulation, and have appeared in this vicinity. The engraving is coarse, and the paper much thicker than the true bills.

Salem paper.

We are informed by a respectable physician that a dog, evidently affected with Hydrophobia, was killed at Lechmere Point on Monday last.—*Palladium.*

Worcester Canal.—It is announced in the Providence American, that Mr. Benjamin Wright is engaged to survey, early the ensuing autumn, the route of the proposed Canal from Worcester to Providence, and to make an estimate of the expense of the undertaking.

Edmund Law, Esq. is a candidate for Congress in Florida. He was, we believe, brother to the late Lord Ellenborough, and author of many of the essays on the currency, which appeared in the National Intelligencer a short time since—a gentleman of genius, learning, and extensive and profound erudition.

American History.—The Evening Post intimates, that the Hon. Timothy Pickering of Massachusetts, contemplates writing Memoirs of his own Times, or some similar work. The following is the paragraph conveying the intimation to which we allude:—

"We express a hope, and we have good grounds for the expression, that this venerable statesman will devote the evening of his days to placing on record, the history of those events and transactions so familiar to

his remembrance, so honorable to himself, so glorious to his country. To what better purpose can he devote his time? How can he serve posterity more essentially, than by placing before their eyes, in an impartial light, the picture of the times that have been? He has served his country in the field and in the cabinet; let him close his labors by acting as the historian of his own times."

Mr. Pickering has now reached the age of seventy; and as he is one of the living chronicles of revolutionary events, such a work as he contemplates would no doubt contain many valuable facts which would serve to illustrate our history.—*N. Y. Statesman.*

Charles Thompson.—A gentleman of this city lately visited the venerable Charles Thompson, secretary of the continental congress in the revolutionary war, at his seat, twelve miles from Philadelphia, on the old Lancaster road. Mr. Thompson has reached the advanced age of ninety-three, enjoys tolerable bodily health, and walks with apparent ease and pleasure to himself; his sight is so good as to enable him to read without spectacles, but he hears with difficulty—his mind is evidently in decay; it is the ruins, however, of superior intellect; far from being puerile, it still bears the impress of greatness, and a familiarity with the best ancient and modern authors. He dwells with peculiar interest on the scenes of the revolutionary war, and relates with great precision, many anecdotes of its prominent characters. On being asked what caused such implicit faith to be put in the documents signed by him, he answered "it was well known that he had resolved, in despite of consequences, never to put his official signature to any account, for the accuracy of which he could not vouch as a man of honor;" and so well was this understood, that when Mr. T. was adopted by the Six Nations of Indians, they emphatically named him "the man of truth."—*Albany paper.*

DEATHS.

In this city, Mr. Thomas Pelham, 38.—Mr. John Burt, 29.—Miss Ann Hughes, 67.—Mr. John Holbrook, 53.—Augustus O. Barton, 39.

In Roxbury, on Thursday last, James Perkins, Esq. of this city, aged 61.

In England, Stephen George Kemble, Esq. the celebrated comedian, aged 64. In private life he was a social, lively companion; and on the stage he was remarkable for playing Sir John Falstaff, without stuffing his jacket.

New Printing Office.

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Husbandman and Housewife.

FOR sale at the Bookstore of Charles Ewer, No. 51, Munroe & Francis, No. 4, Cornhill, and at this Office:—THE HUSBANDMAN AND HOUSEWIFE; being a collection of valuable Recipes and Directions, relating to Agriculture and Domestic Economy. By THOMAS G. FESSENDEN, Esq. Price 50 cents.

The following notice of this work is extracted from the Massachusetts Agricultural Journal for June 1822.

"We have read it with attention, and think it well adapted to the use of farmers, who would not go to the expense of purchasing larger works. It is a collection of receipts, many of which are from high authority, and all of them, as far as they are accurate, calculated for daily and constant use. That errors should creep into such a work must be expected. The recipes are often taken from such transient works, or sources, that it would be impossible for the compiler to vouch for their efficacy or exactitude—but still its use must be very great to the class of people for whom it was principally intended."

August 3.

From the Massachusetts Spy of July 24.

Mr. Editor—The following communication from an intelligent practical Agriculturist, embraces a subject of seasonable and important interest to the farmers.—The question of the effect produced upon the crop of Indian Corn by removing the *Suckers*, and the proper manner and time for doing it, are yet to be decided by more frequent and accurate experiments than appear to have been made, the results having been very different, in the instances heretofore communicated. As the season has now nearly arrived, in which the experiment may be repeated, it is hoped that every Farmer will give so much of his time and attention to the subject, as to take the suckers from at least a single row of his corn, and carefully note the time and manner of doing it, with the comparative product of a similar quantity on which the suckers shall be permitted to remain—and if he will still further ascertain the difference between cutting the stalks and leaving them to be harvested with the Corn, and communicate the result of all his observations to this Society, he would add much to the stock of useful information, and greatly oblige his fellow-laborers in the business of Husbandry.

L. LINCOLN, Cor. Secretary of the Worcester Agricultural Society.

To the Worcester Agricultural Society.

In the spring of eighteen hundred and twenty-one, I proposed to try the experiment of raising Corn, by planting it in rows. I ploughed the ground, as usual, twice; then carted twenty-seven loads of barn manure on an acre, which took two men with a yoke of oxen one day.—As soon as the manure was warmed by the influence of the sun, I then spread the same, and ploughed the ground for the third time. On the eighteenth of May, I furrowed it out, three feet six inches from centre to centre of the furrow—then carried on twenty-five loads of loam, which was carted into my hog-yard the preceding Autumn, and spread the same in the furrows, which took three men and a yoke of oxen one day—I then planted one half the ground in two rows, six inches apart, the remainder about nine. Immediately after weeding it, I spread two bushels of plaster on the rows—at a suitable growth gave it a second hoeing; the second week in July, hoed it the third time; at that period the growth was very rapid, and there appeared to be a greater quantity of suckers from the bottom of the stalks than I ever saw before. The observation struck me, that it would be worthy the attention of our Agriculturists to try the experiment of cutting the sucker from the stalk, which I did from most of it. By observing, I found that such a proportion of juice from the stalk went out where the sucker was taken off, that the growth was not so large, and the ear set higher upon the stalk: on the part where the suckers were not taken off, the corn was thicker set and more prominent—the ears set ten or twelve inches higher the ground, and were a good proportion larger. That part of the field that was planted thinnest, was the largest growth; the stalks and ears thicker set, and the corn set higher the ground. The quantity of corn that grew on an acre was eighty-one bushels.—From the best observations that I have made, I would recommend to any gentleman, wishing to try the experiment of planting in rows, to furrow the ground four feet apart from centre to centre—to plant the corn in two rows, nine inches apart, diamond fashion. It is a very simple process, to level the manure when spread in the furrows, and take a pair of small wheels, with cogs in them, made for that purpose, put them on an axle-tree nine inches

apart, which will dot the ground with accuracy, when drawn across the field, so that a child of ten years may drop the corn without the least difficulty.

LEMUEL DAVIS.

Holden, March 13, 1822.

We are inclined to believe that Mr. Davis would have had a larger crop of corn if it had not been planted so thickly. "Three feet six inches from centre to centre of the furrow" with two rows "six inches" or even "nine inches" apart, if the corn was of the common size of our New England corn might, perhaps, ever stock the ground with plants.

We are told that Mr. Stevens, of Herkimer County in New York, raised one hundred and eighteen bushels of Indian corn to an acre. He planted his seed in double rows about eight inches apart, and the seeds were set diagonally (or diamond fashion as Mr. Davis expresses it) the same distance from each other in the rows. *Between each of the double rows was left a space of five and an half feet.*

Mr. Ludlow, of the same county, raised ninety-eight bushels to the acre. He planted his seed in single rows, four feet apart, with the grains set eight inches asunder. His land was not so highly manured as that of Mr. Stevens.

Mr. Hummell, of Massachusetts, raised one hundred and eleven bushels of corn from an acre of ground, which was furrowed out at a distance of four feet (if we recollect rightly, as we have not the statement now before us) leaving each furrow a foot wide the seed planted in the drill on each furrow, making three rows to each furrow, and care taken to drop the corn as near six inches apart as possible without wasting time.

With regard to taking suckers from corn we would recommend, in addition to the experiments suggested by the Hon. Mr. Lincoln, that trial be made of bending them to the ground, and covering them with earth sufficient to kill them, which has frequently been stated as the best mode of disposing of them; as they thus, it is said, serve as manure to the principal stocks.

Long Woolled and Broad Tailed Sheep of Africa.

The Hon. Dudley L. Pickman, of Salem, has presented to the Massachusetts Agricultural Society a Ram of this breed, first imported.

A Ram and Ewe, of the first race introduced into this country, were presented by Gen. Eaton to the Hon. Timothy Pickering, then resident in Pennsylvania, by the name of the Barbary Mountain Sheep. The President of the Philadelphia Agricultural Society some years afterwards, gave the following high character of the breed, in the memoirs of that Society:

"I know not any breed of sheep superior and few equal to it. Its fleece is of the first quality; and the valuable parts singularly good. No other African Sheep is to be compared to this species, either for fleece, fattening, or hardihood. It bears our severest winters without shelter. Some of the best lamb and mutton sold in our market are of this breed; which is now spread through many parts of this State and Jersey."—(Memoirs vol. 1. page 163.)

General notice is hereby given to the Farmers of Massachusetts, that the Ram now at E. Hersey Derby's, and at the disposal of the Trustees of the Society, will be delivered to any gentleman who is desirous to obtain a cross from this breed, free of cost, and upon the sole condition of good treatment of the animal, and to be kept within the State. Application to be made immediately to either of the subscribers.

E. HERSEY DERBY, Salem.
JOHN PRINCE, Roxbury.

From the Mass. Agricultural Repository for June.

Dr. Deane's New England Farmer.

In our last number we mentioned that Messrs. WELLS & LILLY had caused this valuable, and as we think, standard work to be revised at their own expense, and had put it to press. A wisd render it as perfect as they could, to incorporate in it most of the improvements which have taken place in agriculture since the publication of the second edition, and to expunge from it all superfluous matter, or opinions which are now exploded, has delayed the work to this time.

It will probably appear in the course of a few weeks. We have no other interest in introducing this subject again to the notice of our readers and subscribers, than the wish to diffuse correct agricultural knowledge. Dr. Deane's work was certainly as good a compendium of its size, as could be found in Europe at the time it was published. It had the special merit, for us, of adapting European modes of culture to our soil and climate. Even in its improved state, it is not pretended that the work supersedes the necessity, with intelligent cultivators, of an extensive agricultural library, but it is calculated, and well calculated, to aid the experience, and enlighten and direct the practice of all descriptions of farmers. It has been necessary so far to enlarge it, in consequence of the great modern improvements in agriculture that it may prove too expensive for small farmers, but we think all farmers in easy circumstances will find it a very cheap book. Many things will not be new to them, but even the they will find enforced by new reasons and arguments. Though written principally with view to the New England States, there is a part of the United States in which it will not be found of great value, and perhaps it may not be and ought not to be its smallest recommendation to the farmers of the United States, than excepting the Rev. Jared Elliot's small tract, was the earliest and by far the most respectable agricultural work ever published in the United States. The Farmer's Assistant by Mr. Nicholson, of the State of New York, a very respectable work, is apparently modelled upon it, and I presume the author will admit, what indeed his pages prove, the great assistance derived from this work.

But in New England, it was thought best to republish Dr. Deane's work, with additions and corrections, not with the wish, in any degree to interfere with the other work alluded to. Far from it, Messrs. Wells & Lilly, to our knowledge, contemplated and proposed to the writer of this notice, the republication of Dr. Deane's work, before the Farmer's Assistant went to the press.

We repeat, that as Editors of this journal and as individuals, we have no other interest in, or wish to promote the circulation of a new edition of Dr. Deane's New England Farmer's Dictionary, than the advancement of sound principles in agriculture. We wish to all agricultural publications of merit, and we have alluded to the Farmer's Assistant, ought to add, that we think that work is one which deserves this character. We trust a demand of ten millions of people will be great enough for both, and in a few years, for many others.

NEW ENGLAND FARMER.

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VOL. I.

BOSTON, SATURDAY, AUGUST 10, 1822.

No. 2.

From the Mass. Agricultural Repository for June.

AN ESSAY

On the Advantage of Manuring with Green Crops.

BY S. W. POMEROY, ESQ.

First Vice President of the Society for promoting Agriculture in Massachusetts.

That eminent chemist, Sir Humphrey Davy, who has shed so much light on the *practice* as well as on the philosophy of Agriculture, observes, that "*land* when not employed in preparing food for animals, should be applied to the purposes of the preparation of manure for plants; and that this is effected by means of green crops, in consequence of the absorption of carbonaceous matter in the carbonic acid of the atmosphere. That, in a (*naked*) summer fallow a period is always lost in which vegetables may be raised, either as food for animals or as nourishment for the next crop."

The rewards offered by the board of Trustees of the Massachusetts Agricultural Society for more than twenty years successively, for the best experiments on ploughing in green crops for manure, appear to be still unclaimed; there is of course good reason to believe that the practice is very limited in the Commonwealth. To shew the advantages that result from such a system, elsewhere, the following is transcribed from a letter that I addressed to John S. Skinner, Esq. of Baltimore, the able and zealous Editor of the *American Farmer*, and which appeared in that paper last November.

"Among the various plants applied as green dressings for the restoration of worn out soils, the WHITE LUPIN stands pre-eminent in those climates that will permit their growth between the periods of *harvest* and *seed time*. That a trial may be made with them, I have forwarded half a bushel of the seed, which I trust you will cheerfully distribute for the benefit of our Southern brethren. They were sent to me from Fayal; and the following account, which I have collected, of the effects of their culture, will, at least, serve to convince us, that "*the Earth, ever subservient to the wants of man*," when exhausted by his insatiable demands, requires from him but a little *mechanical* aid, to enable her still to 'spread his walks with flowers and his table with plenty.' The island of Fayal, though in the same parallel of latitude with Maryland, is subject to a temperature seldom above 80, or below 50 degrees of Fahrenheit. The soil is thin, and incumbent on *scoria* and other *undecomposed* volcanic substances; but naturally exceedingly fertile. For a long period of time, every part accessible to the plough, has been in tillage; and, with the exception of selected patches shifted for flax, under alternate crops of wheat and Indian corn, (the latter being the chief food of the laboring classes.) Such a system of severe cropping; the resources for manure very limited, and without the advantage of improved implements or modes of culture, caused a visible deterioration of the soil; the crops lessened from year to year; partial importations were resorted to; and the *well born* of the island became seriously

apprehensive of the most distressing consequences.

"Providentially, some 15 or 20 years since, the *White Lupin* was introduced from Italy, and though it came by accident, to a people strongly bigotted to old practices of husbandry, the cultivation soon became general.

"The wheat and corn are harvested in August, the land is soon after ploughed and Lupins sown on the *surface*, or but slightly covered, at the rate of two bushels per acre. In February they flower, and are then turned in with the wheat, corn or flax in their several rotations. By this management a progressive improvement of the soil has become apparent: there are no longer apprehensions of famine; a very redundant population subsists; and besides supplying 10,000 on the neighboring island of Pico, where scarce any thing but the *vine* is cultivated, a surplus is often sent to other islands, and in some instances to LISBON!

"Lupins are ranked by Gardeners among the hardy annuals, but I am not able to say what degree of frost they will bear. From a single experiment I am led to believe that, owing to the droughts to which our climate is subject, not much advantage will be derived by sowing them on summer fallows as a dressing for winter crops. Their application to spring crops, in those sections of our country where they can be grown in season for that purpose, will probably become the first object of experiment."

The culture of crops to plough in for manure, is by no means a modern practice. The *Romans*, eighteen hundred years ago, according to Pliny, cultivated and applied Lupins for manure in the same manner *precisely* as they now are in Italy, and in Fayal.* But this plant is supposed to be unsuitable for our climate:—we should not despair, however, of finding a substitute.

It has been asserted by Sir Humphrey Davy, that it is a general principle of chemistry, that in all cases of decomposition, substances combine much more readily at the moment of their disengagement, than after they have been regularly formed. And in fermentation beneath the soil the fluid matter produced, is applied instantly, even while it is warm, to the organs of the plant, and consequently is more likely to be efficient than in manure that has gone through the process. He also remarks, that it may be doubted whether there is as much useful manure at the end of a clean (*green crop*) fallow, as at the time the vegetables clothing the surface were first ploughed in. That the action of the sun upon the surface of the soil, tends to disengage the gaseous and volatile fluid matters that it contains; and heat increases the rapidity of fermentation; and that in the summer fallow (*with green crops*) nourishment is rapidly produced, at a time when no vegetables are present capable of absorbing it."

Such expositions show the importance of selecting plants that will arrive at sufficient stature and succulence, in season for spring crops; and it may be well to inquire what vegetables

there are within our reach, that can be successfully applied.

CLOVER is unquestionably one of the greatest improvers; but a season is lost by its application. There is another objection—*weeds* and *wild grasses* that rise with it, the first season, ripen and shed their *seeds*; the effects of which are severely felt in the succeeding tillage rotations.

BUCK WHEAT has been most used in this country for green dressings; and doubtless with good effects on summer fallows for winter crops; but, besides not coming on early enough for *spring crops*, it often leaves the land foul with its own *seeds*; and is allowed, on all hands, to be a great exhauster.

I am aware that an opinion generally prevails that if plants are cut in the *milk*, as it is termed, or ploughed in before they ripen their seeds, that the soil is not exhausted! I presume this theory is founded on the supposition, that while the stalk and foliage are green, the supplies are drawn from the atmosphere; but as soon as they become *shrivelled*, the seeds are perfected with food exclusively from the soil.

This reasoning is plausible, and possibly correct as to certain classes of vegetables, but the position should in all cases be admitted to a very limited extent.

The hum of *bees* in a field of *buck wheat*, and the flavor of the *honey* from the hives in the vicinity, afford strong presumptive proof that the atmosphere does not alone produce such *sweet* results!

There is another consideration that should govern us in the selection of plants for the object in view. It cannot be doubted, but that the soil contains, not only *materials* suited to particular vegetables, but that several species require the same *principles* to furnish their food. Now from an experiment, well defined, twenty years ago, with oats cut in the *milk*, and from constant observation of the effects of their culture on my neighbor's land since, I feel a thorough conviction that they exhaust the soil of those materials or principles necessary for *clover* and other grass, to a degree very destructive to those all important crops.

And such have been my impressions that their deteriorating effects on the soil would be lasting, that a few years since, I restricted a tenant, in a lease which he now holds, from sowing *oats*, even to cut in the *milk*, under a penalty of an increased rent of ten dollars an acre,—I wish to be understood, that these observations are meant to apply solely to dry soils—such as are suitable for Indian corn or wheat—and in our dry climate.

MILLET is a plant, the cultivation of which is increasing, and as an important article for *fodder*, or for *soiling*, will probably within a short period be more fully appreciated, that seems well adapted to sow on summer fallows for winter crops, or to turn in late in the fall to enrich the land for the ensuing spring tillage or other spring crops. Of the exhausting properties of millet I am ignorant, but from the bulk of the stalk and foliage, it must make large draughts from the atmosphere, and copious re-

* See Pliny's Nat. Hist. Book 17, chap. 9, book 12, chap. 14—27.

turns to the soil. The cheapness of the seed is much in favor of its extensive application.

Of all the vegetables that may be best substituted for the Lupin, Rye, in my opinion, is the most promising. This plant, too much neglected to produce food for brutes, but what is to be lamented, *too much cultivated to furnish poison for men*, possesses all the ameliorating properties for the soil, that we are accustomed to derive from any of those belonging to the leguminous tribe. Rye withstands severe drought; and without manure it feeds millions in some countries, from soils little better than blowing sands.

Those soils inclining to loam, that will produce a rank stubble, are said to be enriched by a succession of ripened crops; and it is a fact within my own observation, that rich friable loams, on the alluvial banks of Connecticut, which have been exhausted by repeated, *unmanured*, crops of Indian corn, have been in some measure restored by two or three successive crops of Rye. If it will do this with the dry stubble, what may we not expect from it green, when buried rampant and succulent in the soil?

In order to insure a sufficient growth, in season, to plough in with Indian corn and most of our root crops, Rye should be sown the beginning or by the middle of August, and much thicker than when intended for a crop of grain. If it gets too forward before winter, it should be fed down with light stock or mown. Winter Rye, sown early in the spring grows rapidly, and will generally arrive at sufficient stature in season to be turned in as manure for Ruta Baga. Rye ploughed in when in full flower and Millet sown, which it will bring forward with great luxuriance, and that in its most succulent state, turned in for Wheat, may be one of the best fallow preparations for it that can be devised; and is probably the cheapest and most convenient process to restore an exhausted soil. At the same time it should be considered, that gypsum acts more powerfully on soils thus prepared.

I have been induced to submit the foregoing remarks, not only from an impression that such a system, as has been imperfectly suggested, will tend to increase our products immediately, and insure a progressive improvement of the soil, but from a firm conviction, that it is one of the most efficient resources that the farmers of New England can command, to enable them to meet the crisis that awaits them; and for which, perhaps, they are not fully prepared.

By the noble efforts of the State of New York, those fertile regions in the west, many hundred miles from navigation, will soon be approximated for every useful purpose, and produce the same effect, as if they were within forty miles of the Hudson. And I apprehend that the question cannot be too soon propounded—How is the Massachusetts farmer to meet in the market, on equal terms, the mass of agricultural productions which will then inundate the shores of the Atlantic?

Is it by Canals, in an uneven, confined territory, on which the most profitable staple is grazing? We have no inland seas mingled with mighty rivers, to feed levels through rich alluvial tracts of an hundred miles in extent! No inexhaustible reservoirs of brine, within twelve feet of the surface, seven times stronger than the waters of the ocean; and from which the

whole Atlantic seaboard may be supplied with the heavy article of SALT, as cheap, and of a purer quality, than can be obtained from any part of the world! Neither do our mountains afford those valuable and ponderous minerals, the transportation of which on canals, contribute to the main support of those costly undertakings in Europe!*

On the other hand, would not greater benefits flow, were every dollar of capital that can be spared from commerce and manufactures, appropriated to those vast improvements of which the soil of Massachusetts is susceptible? And should a mania for water works arise, it may have ample and profitable gratification, by cutting trenches on the ridges and tunnels through the hills, thereby draining the numerous ponds, swamps and bogs, creating luxuriant meadows; and by erecting hydraulic machines on the innumerable streams and brooks to irrigate the parched fields on their borders! It is by such enterprizes that the Massachusetts farmers may expect to prosper, aided by a regular system of management, with the application of all the manures that can possibly be collected, on one third part of the soil that usually receives them, and by enriching the remainder by that joint process of nature and art, PLOUGHING IN OF GREEN CROPS.

MASSACHUSETTS AGRICULTURAL REPOSITORY AND JOURNAL, FOR JUNE.

(Continued from p. 2.)

Perhaps there is nothing which more serves to prejudice a great proportion of farmers against what they call *book farming* than injudicious attempts to carry into effect any improvement in husbandry without sufficiently regarding soil, climate, proximity to market, scarcity or plenty of land, low or high price of labor, and other circumstances, which may render a proposed system very eligible and proper in some cases, and very expensive and ruinous in others. Science may give us facts and theories—but good sense must make the application; and the more knowledge a man has, if he has not judgment to make a proper use of his information, the wilder and more ruinous will be his projects and calculations. But in such cases authors are no more culpable for having given misapplied directions, than the sun is to be found fault with for giving that light which enables a man to travel in a road leading him astray from his object. *Book farmers*, as they are called, are, however, sometimes wrong, therefore we should be cautious; but they are sometimes right, therefore we should not be too incredulous. If their doctrine is doubted, bring it to the infallible standard of repeated actual experiment; but if it carries conviction with it,—is assented to as soon as named, let us convert it to useful purposes. But we cannot better enforce and elucidate our meaning than by further quotations from the first article in the Journal which is the subject of our present notices.

"Some persons have doubted the applicability of the system of soiling to our country. By soiling, we mean, (as some of our readers may

not be acquainted with the term, which we must confess is a barbarous one, having no sort of connexion with its real meaning) the feeding cattle either in the barn or barn-yard thro' the summer months with fresh cut green food. Mr. Quincy has very fully and very satisfactorily proved that it can be profitably done in our country—that its cost, compared to its usefulness is very small.

"We agree, however, with many farmers, that it is not generally applicable to our present state of agriculture. It is of great use where fencing stuff is dear—where grass is of great value—where cultivation is carried to great perfection—where population treads very close on the heels of production. But in our country, even in the populous parts of New England, (we say it with great respect for the gentleman who has called our attention to it,) we doubt whether it can be adopted with great advantage, except on lands in the vicinity of great cities, or on farms reduced to a state of great improvement and high cultivation, or on very small farms, where it is invaluable. For example, to myself, its value is beyond calculation. But my next neighbor, has a rocky pasture, to subdue which, to any tolerable state, for any sort of cultivation, would cost the whole value of his farm—but it makes excellent pasture land. The cattle thrive admirably among the rocks and shrubs of this stubborn pasture, which will never be cultivated, till our country shall count as China does its 270 millions of souls.

"Immense woods and pasture grounds exist within 50 miles of Boston, which can be used in no way so profitably as they are now used, for pasture. Till they are taken up and cultivated soiling will be limited, must be limited only to small cultivators, or great experimental farmers. If it be asked why are not these waste pasture lands taken up for cultivation? my answer is they are not wanted—they will not pay the price of reducing them to cultivation. They will remain as they are, till New England shall have its half a dozen Manchesters and Birminghams, and then soiling will become, and never till then, extensively in use."

Mr. Lowell concludes this valuable paper by stating his opinions relative to such objects as require the attention of those who would ameliorate the present system of Agriculture.

"My own ideas as to the most practicable improvements in the agriculture of this part of our country, are principally confined to the following particulars.

"First. The improvement of the character and qualities of all our domestic animals. It would not be extravagant to say that the expense and profits of raising stock would be beneficially affected by having the best races of every sort that are now known in Europe. New England will never be a grain country, any more than she will become the raiser of tobacco or cotton. But she can probably supply two millions of people with beef, pork and wool.

"Secondly. To do this, she may and must use for half a century her natural pastures, because she cannot afford at present prices, to break up her uncultivated lands, but she can raise, and raise to advantage, by a succession of crops, a sufficient supply of succulent roots, such as the Swedish turnip—the Mangel Wurtzel or white beet, carrots and potatoes, to come in aid of her cultivated and natural grass-lands, to support, and improve the condition of her stock of ani-

* The canal from Lake Erie to the Hudson, 363 miles, will probably be finished in 1823. For 240 miles on its line not a single yard of rock is necessary to be removed! The average cost of the whole canal is estimated at \$13,300 per mile. The expenditure for canals in England average \$22,000 per mile. The Middlesex Canal is said to have cost \$17,000. Mr. Gallatin supposed the medium cost of canals in America would amount to \$21,000 per mile. See North American Review for January, 1822, Art. xii.

Brighton, 3d June, 1822.

mals, to the extent of double, nay, I believe, treble their present numbers.

"They will not, they *cannot* exceed the demand, that must regulate the supply, after all we can say or write, but much may be done to enable us to raise cheaper and better animals. If *cheaper* the demand will be greater. We have done much in this way, but much remains to do.

"Thirdly, we are very deficient in Horticulture. To be sure there is no great profit in cash arising to the farmer from gardening beyond the limits of twenty miles from a great town—but when men have arrived to the degree of comfort which our farmers generally enjoy, they ought to seek innocent luxuries. We cannot hope or expect to see their front yards ornamented like those of the Dutch and English cottages, who are not worth a twentieth part as much as they are, with flowering shrubs and plants, so neat and so beautiful as to realize the description of the poets, who have descanted on pastoral life. This depends in those countries on fashion, and as the more opulent indulge in those luxuries, the others follow as imitators; but a delightful pear—an excellent plum or peach, or an admirable winter apple, fresh in April, would be as sweet to the palate of a farmer as to that of a luxurious and opulent merchant, and why these are neglected, I never could comprehend, as the labour amounts to a trifle in procuring and in preserving them.

"Perhaps New England owes its inferiority in these particulars more to the want of good nurseries, than to any other cause. No farmer ought to be without his asparagus bed, which, once laid down, will last without his labour for forty years—no one ought to be without his patch of green peas—lettuce—early and late beans. If more attention were paid to these comforts, we should hear less of spotted and typhus fevers in our otherwise healthy villages, and our females in the country would be more proud of the grounds about their houses, and take more interest in their neatness and comfort than some, perhaps too many of them now do. We do not mean to say, there are not a great many farmers who pay some attention to these things, but the deficiency is deplorable."

The next paper in the Repository is a letter from the Hon. TIMOTHY PICKERING, President of the Agricultural Society for the County of Essex, to John Lowell, Esq. Corresponding Secretary of the Massachusetts Agricultural Society. In this letter the honorable writer observes, in substance, that the greatest difficulty to be encountered in raising peas is to produce them free from bugs. An effectual remedy for this evil is *late sowing*; but the hot sun of June will so pinch the vines of the late sown peas, that the crop will be small; unless the land be *moist* as well as *rich*. He then details some experiments by which he concludes that this insect is limited to a certain period for depositing its eggs; and that if the tender pods are not found till that period has passed, the pease will be free from bugs. Mr. Pickering quotes the following from a paper, written by the late Mr. Bartram, a distinguished Naturalist of Pennsylvania.

"They (the pea bugs) feed, when in the caterpillar or grub state, on the green garden or field pea, as soon as the pods have arrived to a state of maturity sufficient to shew the peas which are within them. In the evening or on a cloudy day, the female deposits her eggs on the outside of the pods; these eggs or nits soon hatch, and the young larva or worm eats directly through,

and enters the tender young pea, where it lodges, and remains feeding on its contents, until it changes to a chrysalis, and thence to a fly or beetle, before the succeeding spring; but do not eat their way out until the colds and frosts are past, which is about the beginning of April, when we generally begin to plant peas." "After they have disseminated their eggs, they perish." "But that which is surprising and difficult to be accounted for, is, that the worm leaves the *rostellum* or sprout untouched, or at least uninjured; for almost every pea vegetates and thrives vigorously, notwithstanding the *corculum* (the rudiment of the young plant) and *plumula* seem to be consumed."

"One or two years observation," continues Mr. Pickering, "in different climates, may be requisite to ascertain the time when the flight of these insects is over and they perish. As peas of various sorts blossom and form their pods at very different times, some that come late may perhaps admit of such early sowing as to secure a vigorous and ample growth of the vines before the intense heat of summer arrives; in which case a satisfactory crop may more surely be expected."

Mr. Pickering concludes this paper with the following remarks on the opinions which some people entertain of the influence of the moon on agriculture and other sublunary concerns.

"Having noticed the folly of regarding the Moon in relation to the time of sowing pease, I add, that the idea of its influence in any other operations in husbandry, ought to be alike discarded. It is a mischievous supposition kept alive by tradition, and countenanced and supported by the idle remarks and representations in almanacks. The figure of a man marked with the signs, and the prognostications of the weather, ought to be expunged; and every well disposed almanack-maker would banish them if he knew the injuries they occasion, by misleading the farmer in any branch of rural economy. I once heard some farmers—speaking of spreading manure on grass-land in the spring—say very gravely, *that it should not be done when the horns of the moon were turned upwards, for then the manure, instead of sinking into the ground, would rise with the grass, and do no good.* On the contrary, they mentioned one farmer who would not set up his worm fence when the horns of the moon pointed downwards—for then the stones placed under the angles of the fence would sink, and the lower rails touch the ground and rot. And an industrious farmer in another state told me that he had slaughtered a fine heifer calf which he wished to have raised, *because it was dropped in the dark of the moon.* If I had not witnessed these facts, I should have hardly thought it possible that such ridiculous notions could have been entertained by any persons who claimed a share of common sense. Even the changes of the weather so generally supposed to be influenced by the phases of the moon, have been found, by long course of observations, to happen at all periods of the moon's appearance indiscriminately. This fact which your father mentioned to me twenty years ago, was this day repeated to me by the gentleman who had noted those observations. Were it otherwise, he remarked,—did the moon's influence determine the weather—then should not this be fair or foul, at the same times, in all countries on the globe?" (To be continued.)

Prayer of a Young Gentleman for a Wife.

From a vain coquette—from a pert assuming Miss, good Lord deliver me. From one whose time and thoughts are employed in dress, ornaments and visits; from one who is enamoured of her own pretty face and accomplishments, and "delighteth with her praise;" from one who talketh loud, affecteth much, and laugheth always, may I by a providence, be delivered.—From one who is not delighted with her home, whose eyes roll with boldness on the faces of men; from one who is insolent, proud and conceited, I earnestly desire to be delivered. From one who appeareth to be delicate beyond what is natural; from one on the contrary, who delights to be seen performing the duties of men; from one who is pleased with a gorgeous apparel; from one on the contrary who is sluttish, neglects her dress, and wanders about barefooted and barelegged, I pray to be delivered. From her who would be thought learned in the sciences, whose ambition is gratified in disputing upon politics and divinity; from one on the contrary who is ignorant, and delighteth not in books, I wish to be delivered. From one who is perpetually finding fault, fretful and uneasy; whose house and family will be kept in continual uproar by her termagant disposition, I ever pray to be delivered. From her whose treatment to her friends is all ceremonious; from her whose manners in company are awkward, who is too bashful to join in the conversation and amusements of polite company; who knows not when to speak and how to speak, may I be delivered. But grant me the hand and heart of that amiable, modest, unaffected, neat and virtuous fair, whose frankness and serenity manifest the disposition of her natural mind. Grant me one who walketh in maiden sweetness; with innocence in her mind and modesty in her cheeks. One who is adorned with neatness in her dress; whose conversation is instructive, pure and decent; one whose eyes sparkle love and kindness; one who delighteth not in slander and obscenity; one whose breast is the mansion of goodness, whose actions are the index of a pure and virtuous mind. Give me the girl who has not yet been taught to disguise the honest simplicity of nature, by the modes of behavior originating from the "beggarly refinement of modern education;" one whose great beauty consists in mental accomplishments; and whose heart and conscience dare to avow the sentiments of her mind; one who shall alleviate my troubles by her counsels, and sweeten enjoyments by her endearments; whose answers are all mildness and truth; whose affections mitigate distress; and whose good humor and complacency banish afflictions. Such a young lady shall be the object of my affections. Such an one should be cherished as a blessing from above. The kindness of my behavior shall endear her to my heart. Happy shall I be to find such a wife. She shall be more precious to me than riches.

Dr. Franklin.—Lord Howe in a conversation with Dr. Franklin on Staten Island, in the time of the Revolutionary war, said "I feel a great affection for the people of America, and should be sorry for the fall of the people of this country." "We will endeavor to prevent your sorrow, my lord," replied Franklin.

FACTS AND OBSERVATIONS RELATING TO
AGRICULTURE & DOMESTIC ECONOMY.

SORREL.

"Over cropping and shallow ploughing, with exhausting crops in succession frequently cause overwhelming growths of sorrel to infest ill managed fields. Lime is the only remedy: and you will see in Lord Dundonald's "*Connexion*" &c. the good effects of lime; which destroys the sorrel, and produces the *sorrel* acid, highly friendly to wholesome and profitable vegetation. Green sorrel grows on fertile soils; but the red sorrel is a certain mark of sterility."

Notices for a Young Farmer, &c. from Memoirs of the Philadelphia Agricultural Society.

All dung should be covered either with earth or a roof, to prevent evaporation and waste of its most valuable ingredients. Mix no hot lime with your muck, dung, or compost heap, before fermentation has ceased, or sufficiently advanced, as it injures moderate fermentation, and often consumes the muck. Instances of even conflagration of strawy muck by hot lime, to a great extent can be given.—*ibid.*

Cut or chaff your hay, straw, corn tops or blades, and even your stalks, with a powerful straw cutter and you will save a great proportion, which is otherwise wasted, or passed thro' the animal without contributing to its nourishment. One bushel of chaffed hay at a mess, given in a trough, three times in twenty-four hours, is sufficient for an horse, ox, or cow. A bushel of chaffed hay, lightly pressed, weighs from 5 to 5 1-2 pounds. An horse, or horned beast, thrives more on 15 lbs. thus given, than on 24 or 25 lbs. as commonly expended, (including waste) in the usual mode of feeding in racks; to which troughs properly constructed, are far preferable. Salt your clover and other succulent as well as coarse hay. But over salting diminishes the nutriment. More than a peck to a ton is superfluous. Half that quantity is often sufficient. Ten or fifteen pounds is usually an ample allowance. Feeding your stock by weight and measure of food will not only save your provender, by its orderly distribution, but frequently, the lives of animals, too often starved by niggardliness or neglect, or gorged and destroyed by profusion. If it be true, as it is that "the master's eye makes the horse fat;" it is equally so, that the master's eye prevents the horse from being pampered, wanton, pensive, bloated, foundered and finally wind-broken and blind.—*ibid.*

Do not commence farming with erecting costly buildings; but apply your time, efforts, and pecuniary means, to your farm; and shift on with tolerable accommodations, until your fields will warrant your providing better. Let your dwelling house and its appendages be to leeward as it respects commonly prevailing winds, (those in winter especially when fires are constant,) of your barn and stack-yard; and sufficiently distant from them to avoid accidents by fire.

Stables for horses should not be too close. Diseases are generated by confined air; and horses kept too warm cannot safely encounter cold and wet. Swine kept in too warm, and more so in filthy pens, are ever subject to diseases and unprofitable feeding. There is no greater mistake than that of gorging swine, when first penned for fattening. They should on the contrary, be moderately and frequently fed; so that they

be kept full, but do not loathe, or reject their food; and in the end contract fevers and dangerous maladies, originating in a hot and corrupted mass of blood; against some of which, dry rotten wood is an absorbent, and, some allege, smith's cinders, thrown in their pens are preventives. In airy and roomy, yet moderately warm pens, paved or boarded, and often cleaned, they are healthy and thriving. They show a disposition to be cleanly, however otherwise it is supposed; and they always drop their ejections in a part of the pen different from that in which they lie down. No animal will thrive unless it be kept clean.—*ibid.*

RYE.

A writer in the American Farmer says "The great and the only secret with regard to insuring a good crop of Rye is EARLY sowing. From the middle of August to the middle of September, I have always found to be the best time for sowing Rye. From three pecks to a bushel per acre, is amply sufficient for seed. Early sown rye is much more heavy than the later; and further, it affords excellent pasture both in the fall and spring, nor does pasturing injure the crop; in many cases it is a real benefit—particularly when eaten down by sheep. Clover also succeeds much better after rye than after wheat."

BUTTER—HOW MADE.

The dairy house should be kept neat, should never front the south, southeast or southwest. It should be situated near a good spring or current of water. The proper receptacles for milk are earthen pans not lined or glazed with lead, or wooden trays. In warm weather milk should remain in the pail till nearly cool before it is strained, but in frosty weather it should be strained immediately, and a small quantity of boiling water may be mixed with it, which will cause it to produce cream in great abundance, and the more so if the pans or vats have a large surface.

In hot weather the cream should be skimmed from the milk at or before sunrise, before the dairy gets warm, nor should the milk, in hot weather, stand in its receptacles longer than twenty-four hours. In winter milk may remain unskimmed thirty-six or forty-eight hours. The cream should be deposited in a deep pan, kept in summer in a cool place, where a free air is admitted. Unless churning is performed every other day the cream should be shifted daily into clean pans, but churning should be performed at least twice a week, in hot weather; and this should be done in the morning before sunrise, taking care to fix the churn where there is a good draught of air. If a pump churn is used it may be plunged a foot deep in cold water, and remain in that situation during the whole time of churning, which will much harden the butter. A strong rancid flavor will be given the butter if we churn so near the fire as to heat the wood in the winter season.

After the butter is churned it should immediately be washed in many different waters, till it is perfectly cleaned from the milk; and it should be worked by two pieces of wood, for a warm hand will soften it, and make it appear greasy.

Butter will require and endure more working in winter than in summer.

Those who use a pump churn must keep a regular stroke: nor should they permit any per-

son to assist them unless they keep nearly the same stroke; for if they churn more slowly, the butter will go back, as it is called; and if the stroke be more quick, it will cause a fermentation by which means the butter will acquire a very disagreeable flavor.

Cows should never be suffered to drink improper water; stagnated pools, water wherein frogs spawn, common sewers, and ponds that receive the drainings of stables are improper.

The operation of churning may be very much shortened by mixing a little distilled vinegar with the cream in the churn. The butter being afterwards well washed in two or three changes of water. The whole of the acid will be carried off; or if any remain it will not be perceived by the taste. A table spoonful or two of the vinegar to a gallon of cream.

To take the rancid taste from Butter.

When fresh butter has not been salted in proper time, or when salt butter has become rancid or musty, after melting and simmering it, dip in it a crust of bread well toasted on both sides; and in a few minutes the butter will loose its disagreeable taste.

Butter made from scalded Cream.

As soon as the milk is taken from the cow let it be placed on a steady wood fire, free as possible from smoke, and scalded for thirty minutes—particular care must be taken not to let it boil. It must then be placed in a cool situation, and on the following day a thick rich cream will appear on the surface of the milk (which is excellent also for dessert purposes) this may be taken off and made into butter in the common way. This method is practiced in England, and it is said that a greater quantity of butter, and of a better quality can be made by this than by the common mode.

Receipt for curing Butter.

Take two parts of the best common salt, one part of sugar, and one part salt petre; put them up together so as to blend the whole completely: take one ounce of this composition for every sixteen ounces of butter, work it well into the mass and close it up for use.

BEER.

To fine and clarify Beer.

Put into a barrel a piece of soft chalk, burnt, about the bigness of two hen's eggs, which will disturb the liquor and cause it afterwards to be fine, and draw off brisk to the last, though it were flat before.—*Amer. Farmer.*

PUDDINGS.

To make a Ruta Baga Pudding.

One and a half pints of pulped Ruta Baga, two spoonfuls of wheat flour, four eggs, half pint of milk, and one table spoonful of butter. The pan greased and flowered, and baked with a quick fire.

Another Way.—One pint and a half of pulped Ruta Baga, a half pint of wheat flour, four eggs, a half pint of suet, and a pint of milk. The pan as before.

Another.—One pint and a half of pulped Ruta Baga, five spoonfuls of flour, a tea cup full and an half of beef marrow, three eggs, two tea spoonfuls of mace, and one pint and an half of milk. The pan greased as above.

It is said there has been a good crop of Hay in Maine, and that persons in Portland have offered to contract for the delivery of Potatoes at 9d per bushel.

FATTING CATTLE.—From the Plough Boy.

MR. HOMESPUN,
I have lately read an essay of Mr. LONDON, of Connecticut, on what he deems the cheapest method of preparing cattle for the stall, the substance of which is here given.

In the winter of 1817, Mr. L. fattened an ox, and a heifer, in a way that he found cheaper than even common keeping. He fattened the heifer first. Her food for the purpose was chopped straw, scalded and seasoned with salt, to which was added a little meal of Indian corn and oats, and a small allowance of oil cake, or boiled flaxseed—the whole mixed up so as to form a mash. Of this about three pecks was given at a time. In fattening the heifer, she only eat a bushel of boiled flaxseed. Some boiled hay was also given her. The ox was afterwards fattened in pretty much the same manner, as nearly as we are able to understand the report of the two cases; for Mr. L. appears to have been more of an adept in fattening, than in describing the manner with clearness and precision. According to this account, however, it appears that his profits in pursuing this mode were very uncommon, and he says that the fattening of these cattle afforded him more clear profit than he had derived from all the cattle he had ever before fattened. It would seem, indeed, that he considerably more than doubled the price of his cattle in fattening them, and that the expense of it was very inconsiderable.

This being the usual time for commencing the business of fattening for the winter store, I have thought proper to exhibit the plan of Mr. L. from a belief that it is excellently adapted for fattening cattle with the least expense. It will readily be perceived, however, that the fall pasture is calculated to obviate the expense of using boiled hay; but I have no doubt that when good hay is steam-boiled, which may be done with a little expense, it is just as nutritious for cattle as when in its green state.

A PLOUGH BOY.

FARMER'S CAPITAL.

There is, perhaps, nothing in which our farmers more frequently err than in undertaking to extend their farming operations beyond the reach of their means. The following remarks from Sir John Sinclair's Code of Agriculture, though written for Great Britain, will apply to this country, with such variations, and allowances for circumstances, as the good sense of the practical farmer will not fail to suggest.

It is indispensable for the success of every undertaking, that a sufficient capital to carry it on, should be at command; and for that of farming in particular. When there is any deficiency with respect to that important particular, the farmer cannot derive sufficient profit from his exertions; for he may often be obliged to dispose of his crops at an under value, to procure ready money; or he may be prevented from purchasing the articles he may require, though a favorable opportunity may present itself. An industrious, frugal and intelligent farmer, who is punctual in his payments, and hence in good credit, will strive with many difficulties, and get on with less money, than a man of a different character. But if he has not sufficient stock to work his lands properly;—nor sufficiency of cattle to raise manure;—nor money to purchase the articles he ought to possess, he must, under ordinary circumstances, live in a state of poverty

and hard labor; and on the first unfavorable season, or other incidental misfortune, he will probably sink under the weight of his accumulated burdens. In general, farmers are apt to begin with too small a capital. They are desirous of taking large farms, without possessing the means to cultivate them. This is a great error; for it makes many a person poor upon a large farm, who might live in comfort, and acquire property upon a small one. No tenant can be secure without a surplus at command, not only for defraying the common expenses of labor, but in case any untoward circumstance should occur. When a farmer, on the other hand, farms within his capital, he is enabled to embrace every favorable opportunity of buying with advantage, while he is not compelled if the markets are low, to sell with loss.

The amount of capital required, must depend upon a variety of circumstances; as 1. Whether it is necessary for the farmer to expend any sum in the erection, or in the repair of his farmhouse and offices; 2. What sum an incoming tenant has to pay to his predecessor, for the straw of the crop, the dung left upon the farm, and other articles of a similar nature; 3. The condition of the farm at the commencement of lease, and whether any sums must be laid out in drainage, enclosure, irrigation, levelling ridges, &c.; 4. Whether it is necessary to purchase lime, or other extraneous manures, and to what extent; 5. On the term of entry, and the period at which the rent becomes payable, as this is sometimes exacted, before there is any return from the lands out of the actual produce of which it ought to be paid; and, lastly on its being 1. a grazing, or 2. an arable farm, or 3. a mixture of both.

1. *Grazing Farms.*—In pasture districts, the common mode of estimating the amount of capital necessary, is according to the amount of the rent; and it is calculated, that in ordinary pastures, every farmer ought to have at his command, from three to five times the rent he has agreed to pay. But in the more fertile grazing districts, carrying stock worth from 30*l.* to 40*l.* per acre, (as is the case in many parts of England,) five rents are evidently insufficient. When prices are high, ten rents will frequently be required, by those who breed superior stock, and enter with spirit, into the new field of speculation and enterprise.

2. *Arable Farms.*—The capital required by an arable farmer, varies, according to circumstances, from 4*l.* 4*s.* to 10*l.* or 12*l.* per English acre. An ignorant, timid, and penurious farmer lays out the least sum he can possibly contrive; and thence obtains the smallest produce or profit, from his farm. These, however, will always increase, when accompanied by skill, spirit and industry, in proportion to the capital employed, if judiciously expended. At the same time, attention and economy cannot be dispensed with. It is ill-judged to purchase a horse at sixty guineas, where one worth thirty can execute the labor of the farm; or to lay out sums in expensive harness, loaded with unnecessary ornaments. Prudent farmers also, who have not a large capital at command, when they commence business, often purchase some horses still fit for labour though past their prime, and some breeding mares, or colts; and in five or six years, they are fully supplied with good stock, and can sometimes sell their old horses without

much loss. In every case such shifts must be resorted to, where there is a deficiency of capital.

3. *A mixture of Arable and Grass Farming.*—This, on the whole, is the most profitable method of farming. Independently of the advantages derived from the alternate husbandry, (which are always considerable,) the chances of profit are much more numerous, from a varied system, than where one object is exclusively followed. Where this mixed mode of farming is practised, the farmer will frequently rely on the purchase of lean stock, instead of breeding his own; and derives great advantage, from the quickness with which capital thus employed is returned. But, in that case, much must depend upon judicious selection.

It is not necessary to enter into any detailed estimates of the capital required for stocking arable or mixed farms, as they have been already detailed in former publications. In general it may be said, that to stock a turnip land arable farm, will require, at this time, from 5*l.* to 6*l.*, and a clay land farm from 7*l.* to 8*l.* per English acre.

This capital is necessarily divided into two parts. The one is partly expended on implements, or stock of a more or less perishable nature, and partly vested in the soil; for this the farmer is entitled to a certain annual gain, adequate to replace, within a given number of years, the sum thus laid out. The other is employed in defraying the necessary charges of labor, &c. as they occur throughout the year; the whole of which should be replaced by the yearly produce. These two branches of expense on a farm, are the first to be attended to, both in order of time, and magnitude of amount.

The most satisfactory statement hitherto given, of the profit derived from the expenditure of an adequate capital in arable farming, is that furnished by George Rennie, Esq. of Phantassie, in East Lothian. On a mixed soil of 702 English acres, he states the profits at 1*l.* 5*s.* an acre, or about 14 per cent. on the capital employed. On this subject it has been well observed, that unless something commensurate to their skill, capital, and industry, is made by intelligent and industrious farmers, it would injure both the proprietors of land and the public. Adventurers who possess but little capital, would occupy the farms, probably at too high rents; they would exhaust the soil, instead of improving it; and while the rapacious landlord would be punished the public would suffer.

From the importance of capital to the farmer, it is evident, that where he unites prudence to energy, it would be of very great utility, to enable him to procure the use of capital, on as easy terms, as the manufacturer or the merchant. He ought to gain from 10 to 15 per cent. on the capital he lays out. He can easily therefore pay 5 per cent. for the money he may have occasion to borrow. As the best means of enabling him to give adequate security, it has been suggested, that the farmer shall have the power of sub-letting his farm, or assigning his lease, always securing a preference to the landlord on equal terms. A prudent farmer, of respectable character, would in that case, never want credit when necessary; and his difficulties regarding capital would in a great measure be done away. If this system were encouraged by liberal proprietors, persons possessed of ardent minds, and

a turn for agricultural improvement, with a power of sub-letting under reasonable restrictions, might go on improving one farm after another, and thus be the means of bringing extensive tracts of country, even in remote districts, into a productive state. But this plan cannot take place, where the tenant is not enabled, to pledge the improvements on his farm, as a security to his creditors.

From the American Farmer.

From a Series of Essays on Agriculture and Rural Affairs; by "Agricola," a North Carolina Farmer.

HORIZONTAL PLOUGHING.

There is no improvement in agriculture which promises to be of more lasting benefit to our country, than horizontal ploughing.

Such has been the system of agriculture among us for ages past, that hilly or broken lands have been no sooner cleared, than wasted.

To test the correctness of this assertion, we need only cast our eyes over the different parts of our country, to behold thousands of acres of hilly land rendered entirely barren, not so much from the vegetable nutriment being extracted by the crops cultivated thereon, as from the soil itself being washed away and deposited in low and sunken places, creeks, rivers, &c.

What would be the consequences of such a system of Agriculture, if it admitted of no remedy or improvement? As a great part of the United States consist of hilly or broken land, the consequences would not only have terminated in the destruction of the soil; but would have extended to the impoverishment of half a nation, and even the destruction of navigation itself.

I do not, therefore hesitate to believe, that horizontal and deep ploughing, promise to be the salvation of our hilly lands, particularly if combined with enclosing, the use of Plaster of Paris and Red Clover.

Horizontal Ploughing was first introduced into practice in this country by Colonel Randolph of Virginia, son-in-law to Mr. Jefferson. Mr. Jefferson, who has frequently witnessed the great and beneficial effects, resulting from this practice, not only on the farm of Col. Randolph, but also on his own, thus details the mode of horizontal ploughing in a letter to a distinguished farmer in Massachusetts, and published in the Agricultural Repository:

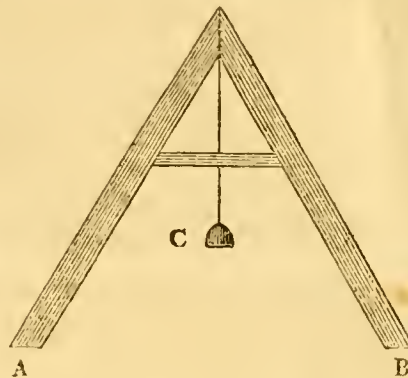
"Horizontal Ploughing has been practised here (Virginia) by Col. Randolph, my son-in-law, who first introduced it, about a dozen or fifteen years ago. Its advantages were so soon observed that it has already become very general, and has entirely changed and renovated the face of our country. Every rain before that, while it did a temporary good, did greater permanent evil, by carrying off our soil, and fields were no sooner cleared than wasted; at present, we may say that we loose none of our soil—the rain not absorbed in the moment of its fall being retained in the hollows of the beds until it can be absorbed. Our practice is, when we first enter on this process, with a rather level of ten feet span, to lay off guide lines, conducted horizontally around every hill side, and about thirty yards apart; the steps of the level on the ground are marked by the strokes of a hoe, and immediately followed by a plough to preserve the trace; a man, or a boy of 12 or 15 years old with the level, and two smaller boys to mark the steps, the one with sticks, the other with the hoe, will do an

acre of this an hour, and when once done, it is forever done. We generally level a field the year it is put into Indian corn, until all have been once levelled: the intermediate furrows are run by the eye of the ploughman, governed by these guide lines, and is so done as to lay the earth in horizontal beds of 6 feet wide with deep hollows or water furrows between them, to hold superfluous rain—the inequalities of declivity in the hill will vary in places the distance of the guide lines, and occasion gores, which are thrown into short beds.

"I have transferred this method of ploughing to a possession I have near Lynchburg 90 miles to the S. W. from this place, where it is spreading rapidly, and will be the salvation of that, as it confessedly has been of this part of the country.

"Horizontal and deep ploughing, with the use of plaster and clover, which are but beginning to be used here, we believe will restore this part of our country to its original fertility, which was exceeded by no upland in the State."

As many persons may not have a correct idea of the raster level, the use of which is recommended in this Essay, the Editor has procured the annexed engraved representation of it.



It is necessary to caution the reader, that unless horizontal ploughing be correctly done, it had better not be done at all; because I have observed that many have attempted this mode of ploughing, without understanding its principles: If the water furrows, which are intended to hold the superfluous water, have the least descent one way or another, they will have the effect of throwing the water to one point, where such a quantity will be collected in heavy rains by a number of water furrows leading to the same point, as will inevitably produce a breach through the ridges. It is advisable, that before the level is applied to a field its surface be made as even as possible; this is best done, if its unevenness renders it necessary, by flushing up the ground in the fall or winter with a mould board plough, and early in the spring to be well harrowed with a two horse harrow; this last operation will not only level the surface, but will have the additional valuable effect of breaking the clods and thereby effectually pulverizing the ground, which will prove of great advantage to the corn in every stage of its growth. The level, in this case, may be applied in the spring and the ground listed or thrown into horizontal drills for the planting of the corn. Success in horizontal ploughing depends on the exactness of the level to suspend, and the depth of the ploughing to absorb the water. Inclosing is indispensably necessary to make it beneficial, as by that the earth is brought into a

proper state for absorbing more water, and the suspension of the progress of this water by a vegetable cover, allows more time for the operation of absorption.—In heavy rains, when the ground is in cultivation, and however accurately levelled, instances will occasionally occur breaches across the horizontal beds.—The remedy is, to fill them immediately with brush, hanging the leaves on, well packed.

These instances, however, are very rare and easily thus cured.

Besides the inestimable advantage from horizontal ploughing in protecting the soil against the wasting effect of rains, there is a great one in preventing the rains themselves from being lost to the crop. The Indian corn is the crop which most exposes the soil to be carried off by rains; and it is at the same time the crop which most needs them.—Where the land is not on hilly, but the soil thirsty, (as is generally the case with such lands) the preservation of the rain as it falls between the drilled ridges, is of peculiar importance; and its gradual settling downwards to the roots, is the best possible mode of supplying them with moisture. In the old method of ploughing shallow up and down hill, the rain as well as the soil was lost, which not only destroyed the upland, but rushed down and poisoned the valleys. The result of horizontal ploughing in Virginia is extremely encouraging to those who may wish to adopt the practice here. Farms there which are very hilly, whose soils were particularly liable to be washed away, and which were excessively galled and gullied, have been relieved probably nineteen parts in twenty of those calamities by horizontal and deep ploughing in combination with inclosing.

NEW ENGLAND FARMER.

BOSTON:—SATURDAY, AUGUST 10, 1822

THE SCIENCE OF AGRICULTURE AND BOOK FARMING

Agriculture, the oldest of the arts, considered as science, is still in its infancy. It is, we believe, a fifty years since chemistry was brought to the aid of agriculture, and this will eventually prove one of its principal pillars. Systematic Rotations of crops—Improvements in breeding cattle—the use of Plaster Paris—Soiling of Cattle—the extensive Field Culture of Roots, for the purpose of feeding cattle—Artificial Grasses, &c. &c. are of modern date, and have brought about great revolutions in the theory and practice of farming. The practical farmer, especially in the old and more populous parts of the country, must understand, and in some degree practice these improvements or he will not only neglect to make the most of his means but probably make so many backward & down-hill movements in the journey of life, that, ten chances to one old age will find him in the vale of poverty. The cultivator who does not keep pace with his neighbors regards agricultural improvement and information, will soon find himself the poorer in consequence of the prosperity that surrounds him. He will be like a stunted oak in a forest, which is deprived of light and air by its more towering neighbors. For instance, A. finds out a mode of managing by which he can raise 30 bushels of potatoes with as little expense as B. can raise 200 bushels of the same root. A. can not only undersell B. and thus injure him as an individual rival but after a while Messrs. C. D. E. F. and so on to the end of the alphabet, adopt A's mode of culture; the market price of potatoes is reduced, B. can no longer afford to raise them for what they will fetch—his occu-

tion is gone, and it is to be feared that he must go with it, either to a poor-house or the state of Ohio.

But we must not advise farmers in middling circumstances to make expensive experiments, nor adopt novelty in husbandry on slight grounds, without being well convinced by testimony, observation or experience, of its beneficial effects. We had better by all follow the beaten track of our ancestors, if it be a little rugged and circuitous, than strike out at once into a wilderness of whim-whams, and theories not sanctioned by actual and repeated experiments. A farmer, unless he be very rich indeed, cannot afford to be "full notions," but must leave merchandize of that sort to the good citizens of the Metropolis. He should exercise his own good sense on every proposed improvement, and neither consider that it *must* be useful because it is new, and has the sanction of some great names, nor let its novelty be an insuperable objection to its adoption. Many plants, animals, and theories relating to agriculture, &c. which some years since were considered as very useful and meritorious, are now derisively sunk in public estimation; and those who adopted or introduced them have suffered in consequence of their anticipations not having been realized. Thus the theory of Tull, by which frequent ploughing was to supercede the use of manure; the Lombardy poplar, which was supposed to be more useful and ornamental than any of the countless species of trees which adorn our forests—the Burnet-grass, which was presented as the grass which must eventually root it all other grasses, have had their day and their advocates, and some ardent theorists have undoubtedly suffered in consequence of their carrying into practice their predilections in favor of this or that plant, or plan of cultivation. These things, however, should not check enterprise, but inspire caution, and teach us that at every novelty may not be an improvement, although *very improvement was once a novelty.*

Some farmers tell us that they never knew any good result from what they call *book-farming*. That *gentlemen farmers*, who know nothing about farming but what they get out of their libraries spend a great deal, but never make any profit by their agricultural projects, and schemes of domestic economy. We will examine these positions a little.

It was truly said by Lord Bacon that "*Knowledge is power.*" This maxim applies with as much force to agriculture as to any thing which can be the object of human agency. If we *knew* nothing we could effect nothing beneficial to ourselves or others, but must burrow in the ground and subsist upon beech nuts, and then spontaneous productions of the earth. This knowledge, which gives man his supremacy "over the beasts of the field and the fowls of the air," and which bestows on individuals among mankind a pre-eminence much more substantial and less invidious than birth, wealth, titles, or popular applause, can be acquired only by three modes, viz. *observation, conversation and reading.* Observation and conversation are very important inlets to ideas, and reading furnishes perhaps, as great a quantity of useful materials for the mind to operate upon as either of them. *Book-knowledge then is power*, and other things being equal, the farmer who obtains information from books, or other printed works, and has strength of mind, and good sense sufficient to make a proper use of it, has the advantage over his unlettered neighbor, who despises *book-farming*, equal perhaps to one pair of hands and two yokes of oxen. Besides, what is this book knowledge, which some honest cultivators think is so much to be dreaded? It is nothing more than the result of observation, or experience, which after having passed through the channel of conversation, is at length re-

duced to writing, sent to the press, and the moment it is printed, becomes, according to the objectors to whom we allude, *book farming*; and therefore is to be considered as something very ruinous to the practical husbandman! Thus, we will suppose that A. has found out a safe and easy cure for bots in horses, or an antidote against the Hessian fly, or a method by which he can raise double the usual quantity of Indian corn on an acre; A. communicates his discovery or improvement to B. his near neighbor, who, although he has a great aversion to book farming, makes use of and derives great advantages from it on the strength of A's oral testimony. But A. sends an account of his discoveries and processes to the printer, and it is published in some periodical paper, and perhaps finds its way into some volume written on agricultural subjects. The whole then becomes *book farming*, and not worthy of the attention of real, genuine, practical farmers!

But these absurdities are fast yielding to reason and the lights of science. The time has arrived in Europe, and is fast approaching in America, in which books, and the information which they contain, will be considered as necessary to make a man a complete farmer, as a complete physician, lawyer or divine.

THE SEASON.

We believe that the present season bids fair to be quite as fruitful as usual. The early drought has been succeeded by copious rains, and for some days past cool and pleasant weather has afforded the farmer an excellent opportunity to gather the products of the fields. Grass-hoppers and other devouring insects are not so common nor destructive as they have been for several summers past, and there is every prospect that the year will be crowned with the goodness of the great Bestower of all benefits.

A late arrival from Liverpool at New York furnishes London dates to the 22d June. By these we learn that several bills, annihilating the long continued navigation system of England, have passed through Parliament, and of course a free trade will be allowed to every part of the British dominions, including the West India Islands. This will give fresh stimulus and energy to commerce and navigation, as well as to agriculture and every other species of laudable industry.

The war between Russia and Turkey seems to be suspended for the present, and perhaps will be adjourned without day. Those, therefore, who long for something sanguinary and terrible, will probably have their depraved appetites balked, and must be satisfied with such calamitous accidents by flood and field as these "piping times of peace" can afford us.

The situation of the Greeks, it is to be feared, is desperate. The Emperor of Russia, it is said, refuses to interfere in their behalf, and they suffer all that those can inflict whose tender mercies are cruelty.

There is some vaporing in foreign journals about fighting between France and Spain, but we are inclined to think that the rumors of war were got up for pecuniary purposes, either to accomplish some stock jobbing manoeuvre, or to give interest to the dull columns of newspapers destitute of news.

A Naval Court of Inquiry, at the request of Captain Hull, will commence at the Navy Yard on Monday next. The members are Captains Rodgers, Chauncey, and Morris. The two former are Navy Commissioners.

A highway robbery was committed last Tuesday night, between 11 and 12 o'clock, near the draw-bridge, in Fore Street, on a young man, who was knocked down by the highwayman, and rifled of his pocket-book, containing one \$10 bank note, and several others of a smaller denomination.—*Evening Gazette.*

On Wednesday, Ticket No. 1245, which drew the Capital Prize of \$8,000, in 3d class of Canal Lottery, was presented, and paid by Benj. Huntington, No. 21, Exchange st.

Hill, who was wounded in the late insurrection at the State Prison, died on Sunday last.

At New Brunswick lately four persons were poisoned by eating musles—and two of the persons died.

PRODUCTS OF AGRICULTURE.

The amount of the product of the well cultivated lands of the Eastern States, would astonish any but those who have been accustomed to the river bottoms on the western rivers, or to alluvial lands. We can scarcely believe when we read them; and should not believe it, were not the facts too well vouched to be questioned. We lately met with an account of the premiums given at a Massachusetts meeting some time last autumn, and a few of the results are stated below, for the gratification of the curious in such matters.

Of Potatoes.—Five hundred and fifty-one and a half bushels were raised on one acre of land, by Payson Williams, Esq. of Fitchburgh, in the county of Worcester, (from 24 bushels of seed.)

Of Turnips.—Seven hundred and fifty-one bushels of the common English sort, weighing 54 lbs. to the bushel, were raised by Messrs. T. & H. Little, on one acre of ground.

Of Mangel Wurtzel.—Six hundred and forty-four bushels were raised on one acre of ground, by John Prince, Esq. of Roxbury.

Of Cabbages.—Forty-three tons nineteen hundred and ten pounds weight, were raised by E. H. Derby, Esq. of Salem, on one acre, one quarter of an acre, and twenty-seven rods, being at the rate of thirty-one tons to the acre.

Mr. Derby received also the premium of \$30 for having raised the greatest quantity of vegetables, (grain, peas and beans excepted) for winter consumption of the stock on his own farm. He raised the last season on his farm 749 bushels of mangel wurtzel, 520 bushels of carrots, 526 bushels Swedish turnips, 1238 bushels of potatoes, 126 bushels of Russian radishes, 757 bushels of common English turnips, 23 tons and 19 cwt. of cabbages, and 15 ox cart loads of pumpkins.

Of Ruta Baga.—Mr. David Little raised six hundred and eighty-eight bushels on one acre.

Of White Beans.—Thirty-two bushels and four qts. were raised on one acre by William Mears, of Marblehead.—*National Intelligencer.*

THE DUELISTS—A TRUE STORY.

We learn an affair of honor recently took place in this vicinity, between the heroic wife of ensign W. and one of the veteran marines of the illustrious Preble. The parties, instead of using swords and pistols, supplied their hands with weapons more innocent and less honorable, from the odoriferous contents of a *pig sty*;—and disdaining to stand *Cumming* and *Macduff* like, boldly faced each other. The contest was continued with great spirit, and the *utmost politeness*, on both sides, till the locks and garments of either party dripped with liquid odour; and till the fair antagonist fell under the well directed fire of her adversary, and was declared unable to maintain the combat any longer. We are happy to learn that she is "perfectly comfortable;" and that the unquenched animosity of the parties rekindled by the officious intermeddling of the mischief-making public, will probably afford us a renewed exhibition of their martial spirit. Indeed, it is currently reported that a second challenge has been sent and accepted—the official bulletin announcing the same is hourly expected, the result of which we shall wait with as much anxiety as of that which is to take place on the 10th inst. at the South; and we doubt not the parties will retire from the field of combat *equally covered with honor.*—*Salem Gazette.*

DEATHS.

In this city, Mrs. Hannah Farrar, wife of Mr. John A. F. 33.—Miss Mary Waterman, 19.—Mr. William Badger, 80.—Mr. John Lloyd, 39.—Martha Esther, daughter of Ebenezer and Dolly Hill, 2 yrs. 6 mo.

GREAT ADDITIONS TO THE NEW ENGLAND MUSEUM, 76, COURT STREET.

THE Proprietors of this extensive establishment have the pleasure to announce to their patrons and the public, that, besides their usual continual additions of curiosities from all parts of the World, they have just added another *entire Museum*, making now one *Grand Consolidation, of 4 Museums united in one.*

The late additions alone are superior in extent and variety, to any other Museum in this city.

Admittance 25 cents only.

August 10.

AGRICULTURE.

Thou first of arts, source of domestic ease,
Pride of the land, and patron of the seas,
Thrift Agriculture! lend thy potent aid;
Spread thy green fields where dreary forests shade;
Where savage men pursue their savage prey;
Let the white flocks in verdant pastures play;
From the bloom'd orchard and the showery vale
Give the rich fragrance to the gentle gale;
Reward with ample boon the laborer's hand,
And pour the gladdening bounties o'er our land.
Columbia's sons, spurn not the rugged toil,
Your nation's glory is a cultur'd soil.
Rome's Cincinnatus, of illustrious birth,
Increas'd his laurels while he till'd the earth:
Even China's Monarch lays his sceptre down,
Nor deems the task unworthy of the crown.

THE MILK-MAID AND THE BANKER.

A Milk-maid with a very pretty face,
Who liv'd at Acton,
Had a black Cow, the ugliest in the place,
A crooked-back'd one,
A beast as dangerous too, as she was frightful,
Vicious and spiteful,
And so confirmed a truant, that she bounded
Over the hedges daily, and got pounded.
'Twas all in vain to tie her with a tether,
For then both cord and cow elop'd together.
Arm'd with an oaken bough (what folly!
It should have been of birch, or thorn, or holly),
Patty one day was driving home the beast,
Which had, as usual, slipp'd its anchor,
When on the road she met a certain banker,
Who stopp'd to give his eyes a feast
By gazing on her features, crimson'd high
By a long cow-chase in July.
"Are you from Acton, pretty lass?" he cried;
"Yes," with a curtesy, she replied.
"Why then you know the laundress, Sally Wrench?"
"She is my cousin, sir, and next door neighbor."
"That's lucky, I've a message for the wench,
"Which needs despatch, and you may save my labor."
"Give her this kiss, my dear, and say I sent it,
"But mind, you owe me one—I've only lent it."
"She shall know," cried the girl, as she brandish'd
her bough,
"Of the loving intentions you bore me,
"But as to the kiss, as there's haste, you'll allow
"That you'd better run forward, and give it my Cow,
"For she, at the rate she is scampering now,
"Will reach Acton some minutes before me."

THE LAWYER AND THE CHIMNEY SWEEP.

A roguish old Lawyer was planning new sin,
As he lay on his bed in a fit of the gout;
The mails and the day-light were just coming in,
The milk-maids and rush lights were just going out:
When a chimney-sweep's boy, who had made a mistake,
Came flop down the flue, with a clattering rush,
And bawl'd, as he gave his black muzzle a shake,
"My master's a coming to give you a brush."
"If that be the case," said the cunning old elf,
"There's no moment to lose—it is high time to flee;
"Ere he gives me a brush I'll brush off myself,
"If I wait for the devil, the devil take me!"
So he limp'd to the door, without saying his prayers,
But Old Nick was too deep to be nick'd of his prey,
For the knave broke his neck by a tumble down stairs,
And thus ran to the devil by running away.

APHORISMS.

To bear and forbear is the grand surety of happiness, and ought to be the grand study of life. It is that "charity which suffereth long, and is kind, and is not easily provoked."

Some persons say severe things at random, without appearing at all conscious of the wounds which they inflict by

"— The word whose meaning kills, yet told,
The speaker wonders that you thought it cold."

The strongest of all ties is the consciousness of mutual benefit and assistance.

It is too true that wounds, however small, which are inflicted on our self-love are never forgotten, and rarely forgiven; and it is safer to censure the morals of our acquaintance, than to ridicule their dress, a peculiarity in their manners, or a fault in their persons.

We are all of us too apt to repeat stories to the prejudice of others, even though we do not believe them. Well indeed does St. James say that "the tongue is an unruly member."

Whatever may be the ill conduct of a husband, that wife must be deluded indeed, who thinks his culpability an excuse for hers, or seeks to revenge herself on her tormentor by following the bad example which he sets her. She is not wiser than the child, who to punish the wall against which he has struck his hand, dashes his head against it in the vehemence of his vengeance, and is himself the only sufferer by the blow.

There is nothing more dangerous to the virtuous and to the interests of virtue, than association with the guilty who possess amiable and attractive qualities.

Opportunities for conferring large benefits, like bank bills of \$1000, rarely come in our way, but little attentions, friendly participations, and kindnesses are wanted daily, and like small change are necessary for carrying on the business of life and happiness.

Many a conjugal union, which has never been assailed by the battery of crime has fallen a sacrifice to the slowly undermining power of petty quarrels, trivial unkindnesses, and thoughtless neglect.

Attention to decorum is one of the greatest bulwarks of female virtue.

It is a painful but well known fact that the envy and rivalry of near relations is the most bitter and inveterate.

All persons given to anger are apt to dwell on the provocation that they have received, and utterly forget the provocation they gave.

ANECDOTES.

When Themistocles was a boy, he was on a certain time returning from school. Pisistratus happening to meet him, the master said to Themistocles, "stand out of the way, and give place to the prince." "What," said Themistocles, "has he not room enough?" thus intimating the little respect he paid to a tyrant.

Some people are proud of dress, others are proud of their singularity. Some are proud of being extravagantly in, and others of being ridiculously out of fashion. Some are proud of their humility. A Greek philosopher being at a celebrated festival saw some young men of Rhodes magnificently arrayed. Smiling he exclaimed "this is pride." Afterwards meeting some Lacedaemonians in a mean and sordid dress he said "and this also is pride."

In England, it is well known that the Yankees are ridiculed with the name of *Bumpkins*. An English lady, on a tour through the northern part of this country, passing a field of pumpkins enquired what they were? Her companion replied that they were *pumpkins*. "*Barbarous wretches*," exclaimed the lady, (mistaking the name for *bumpkins*.) "*barbarous wretches, to bury their friends with their heads out of ground.*"

PETER PUFF—AUCTIONEER,

Dyer and Man Milliner—mends clocks and makes wigs; tunes piano fortes and cuts corns man-midwife and horse-shoer; bellows-maker and teacher of psalmody; has a diploma from Gretna Green, and another from the University of Aberdeen; attends at all times and places from break of day till three o'clock the next morning to unite the votaries of Hymen, inoculate children, bleed horned cattle and other reptiles; rings pigs noses and the parish bells and performs all kinds of manual operations by steam, water, and thirty-ass-power, without touching hand or foot to the machinery.

Irish paper.

A gentleman in *Cork*, of much taste fitted up a house in a style of great elegance. On showing it, however, to a friend, the latter objected to the thinness of the partitions, which divided the rooms from each other, observing that all that was said in one room might be heard in the next. To this the owner replied that he would immediately try the validity of the objection by an experiment which would not fail. He accordingly called his servant Patrick, directed him to go into the next room, to carefully shut the doors, and then listen in order to ascertain if he could distinguish any words spoken in the other room where his master remained. When the master thought Pat was properly stationed he called out to him "do you hear me?" Pat answered "*no Sir.*"

New Printing Office.

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The following notice of this work is extracted from the *Massachusetts Agricultural Journal* for June 1822.

"We have read it with attention, and think it well adapted to the use of farmers, who would not go to the expense of purchasing larger works. It is a collection of receipts, many of which are from high authority, and all of them, as far as they are accurate, calculated for daily and constant use. That errors should creep into such a work must be expected. The recipes are often taken from such transient works, or sources, that it would be impossible for the compiler to vouch for their efficacy or exactitude—but still its use must be very great to the class of people for whom it was principally intended."

August 2.

NEW ENGLAND FARMER.

Published every Saturday, by THOMAS W. SHEPARD, Rogers' Building, Congress Street, Boston; at \$2.50 per ann. in advance, or \$3.00 at the close of the year.

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No. 3.

From the American Farmer.

The immense importance of durable timber for farming as well as naval purposes, gives an interest to every judicious, or even plausible speculation on the subject. The communication from a person of Commodore Porter's intelligence, will of course attract attention: especially when viewed in connexion with his official station, which peculiarly demands the best attainable knowledge of the matter. Believing the opinion he has given, which is, and probably has been for ages that generally received, to be erroneous; and thinking it possible that I might throw some light on the subject;—I submit to your readers the following observations on the

FELLING OF TREES FOR TIMBER.

In the 22d number, volume III, of the American Farmer, is a letter from D. Porter, (commodore Porter) on "The best time to fell Timber with a view to its durability"; in answer one from the Editor, requesting a communication on the subject. The commodore, "availing himself (as he says) of the knowledge and experience of others, in support of his opinion," states this to be, that "the most proper season for felling timber with a view to its durability, is in the winter, when the sap has ceased to circulate." This corresponds with the opinion I have heard generally expressed, ever since I noticed observations on the subject; and the precise time in the winter is fixed, by tradition, to the old of the moon in February."

Many years (perhaps half a century) have elapsed, since I have been inclined to doubt whether the animal and vegetable kingdoms are under the government of the moon. The commodore thinks its "influence nearly if not quite as powerful as [that of] the sun." He asks, "why that body [the moon] whose attractions can raise the tides and influence all animal creation, should not have the power to put the sap of vegetables into circulation, assisted as it is by capillary attraction?"—As heat is essential to give motion to the sap in plants, and the heat of the sun is adequate to that effect, it is not necessary to seek for any other cause; still less to resort to one merely conjectural. No means yet tried have discovered any heat in the rays of light from the moon.

If any effects on vegetation were ascribable to the moon's attraction, yet in an entire revolution, at different distances are not so considerable, as to produce very different effects. Besides combining its different periods, it is as near the earth in its decrease, as in its increase; and its power of attraction must be the same in both cases. The sowing of seeds, therefore, and their vegetation, and the growth of the plants proceeding from them, cannot, (as the commodore seems to suppose) be influenced by the phases or appearances of the moon. The notion of the moon's "influence on all animal creation," if not a novelty, I believe to be altogether visionary. Anciently, indeed, mad people were supposed to be affected or influenced by the moon; and thence were called lunatics: but that opinion seems now to be exploded. I am indeed satisfied (contrary to the general belief) that *changes in the weather* have no dependence on the moon; but happen indifferently at all periods of its increase and decrease. It has not heat to raise wa-

tery vapours from the earth, or to suspend them in the air; and under the same aspect of the moon, the weather is fair at one place and foul in another.

No one can doubt that "dryness is favorable and moisture unfavorable to the durability of timber;" and in winter the sap of trees is probably inspissated to a considerable degree; but no living tree is then "devoid of sap."—The important question, therefore, in relation to the felling of timber trees, is, I am inclined to think, not simply *when trees have the smallest quantity of sap*; but *at what season the sap they contain will most easily escape or be expelled*. The facts I am going to state may show this to be in the spring, when the sap is thinnest and flowing in the greatest abundance.

In the year 1800, divested of public employment, and about to commence husbandman, I made a visit to the late Joseph Cooper, of New Jersey, one of the most intelligent farmers I ever knew, to converse with him on the subject of his vocation. Among other things, he spoke of *timber*; and stated the following facts. His farm lying on the Delaware river nearly opposite to Philadelphia, was exposed to the ravages of the British army while occupying that city. Pressed for fuel, his fences first fell a prey to their necessities. In the month of May 1778, they cut down a quantity of his white oak trees: but circumstances requiring their sudden evacuation of the city, his fallen timber was saved.—The trees he split into posts and rails. The ensuing winter, *in the old of the moon in February*, he felled an additional quantity of his white oaks, and split them also into posts and rails to carry on his fencing. It is now, said he two and twenty years since the fences made of the May-felled timber were put up, and they are yet sound; whereas those made of the trees felled in February, were rotting in about 12 years. He then pronounced confidently, *that the best time for felling timber trees, for durability, was when their sap was vigorously flowing*. He said, also, that white oak and hickory trees felled at that season, would not be attacked by the worms, producing what is called "powder post." And added that hoop-poles of oak and hickory ought, for this reason to be cut the same season.

In the same year, accident threw in my way the late Oliver Evans' book on the construction of mills; to which was subjoined a treatise of a Mr. Ellicot, a mill wright, on the same subject. Turning over some of the leaves of this treatise, I lighted on the passage in which the author directed *hickory timber*, intended for the cogs of wheels, *to be cut when the sap was running, that they might not become powder post*.—In the following winter (1801) being in Boston, and conversing with a friend from the country on subjects of husbandry, I repeated Mr. Cooper's observations, as above stated. This friend then mentioned a farmer, the well pole (or sweep) of whose well happened to break at a very busy time: that to supply its place, he cut down the first small tree that came to hand; and this was a white birch. The sap then running freely, he stripped off the bark, and put up his pole; and it lasted seventeen years. Had he put it up

with the bark on, it would probably have rotted in a year; *the closeness of the birch bark preventing the escape of the sap*. A close coat of paint, laid on unseasoned wood, operates like the close birch bark, by confining the sap, and hastening its decay.*

More than fifty years ago, seeing a quantity of logs with the bark on, piled up by a chair maker's shop, I asked him why he did not split them, that they might the sooner get seasoned. He answered, that so long as the bark remained on the logs the sap remained in them, and they were more easy to be dressed and turned. Unless timber trees be cut when the sap is running, the bark cannot be stripped off; tho' with considerable labor it may be removed by the axe and drawing knife; but less perfectly.

The late Mr. Bordley (who was vice-president of the Philadelphia Society of Agriculture, from its formation in 1785, until his death) once told me, that when riding in the vicinity of Philadelphia, he met a master ship-builder, who had been viewing some trees for ship timber. Mr. Bordley mentioned to him the greater value of ships built with the timber of trees allowed to remain standing a length of time after their bark had been stripped off. The shipwright said he was fully sensible of it; the ships would last so much longer. Why then, asked Mr. Bordley, do you not adopt that practice? Because, said the shipwright, such timber becomes very hard, and costs much more labor to work it.—I have heard new settlers dispute, which was the best way of clearing woodlands; whether by girdling (chopping the bark all round the trees to stop the circulation of the sap, when they gradually die) and letting the tree stand; and at once seeding the land for a crop: or by cutting all down at first, and burning. The advocates of the latter mode, said, that by girdling and letting the trees stand, they became dry, and so hard as greatly to increase the labor of afterwards cutting them down.

"Dr. Plott [who wrote in the 17th century] says, it is found by long experience, that the trunks or bodies of trees when barked in the spring, and left standing naked all the summer, exposed to the sun and the wind, are so dried and hardened, that the sappy part in a manner becomes as firm and durable as the heart itself. This is confirmed by M. Buffon, who in 1738, presented to the Royal Academy of Sciences at Paris, a memoir, entitled "An easy method of increasing the solidity, strength and duration of timber;" for which purpose he observes, "nothing more is necessary than to strip the tree entirely of its bark during the season of the rising of the sap, and to leave it to dry before it be cut down."†

* In confirmation of the opinions advanced by Col. Pickering, we can add, that poles cut from the green willow, the tenderest and least durable of our trees, in June, and stripped, became extremely tough and hard, so as to be applicable to many uses, such as ladders, &c. for which spruce is used. The loppings of all trees cut off in June become extremely hard, and will endure for years without rotting. These we know to be facts.

EDITORS.

† See British Encyclopædia, article Tree; also Rees' Cyclopædia, article Timber.

But why should timber trees be felled in May, (or when the sap is freely running,) as in the case stated by Joseph Cooper; or barked and left standing until dry, according to Buffon, be more durable than timber felled according to the prevailing & popular notion, of the old of the Moon in February? For an answer I offer the following conjecture.—The thinner and more fluid any body is, the sooner and more perfectly it will evaporate. The sap of trees is doubtless more inspissated, or of thicker consistence, in winter than in the spring, when it is apparently thin and watery. In the latter state it will find its way, and escape, through the pores of the wood, with vastly greater ease and expedition than when, as in winter, it is much inspissated. Molasses, condensed by the winter's cold, runs very slowly through tubes of a large size. In summer, the same molasses swelling to a large volume, and becoming very thin, will pass through very small tubes, and, I believe through the pores of some sorts of wood. The same substance (molasses) exposed, in a small quantity, to the hot sun of summer, would soon discharge its more fluid parts, and at length leave, as I suppose, a solid substance behind: but if much diluted with water, would not the whole substance be nearly if not quite carried off by evaporation?—the same reasoning may apply to trees left standing, after being divested of their bark in the spring.

It appears by some English books that their usual time for felling oaks is in the month of April, when the sap is running, and they can strip off the bark for tanning. But the commodore states, “that in all their contracts for timber for naval purposes, the influence of the moon on the sap is more guarded against than any other;” and he adds, what seems very extraordinary, that “more attention is paid to the time of the moon when timber should be cut, than to the season of the year; for (as before remarked) seeing the moon is at the same distances from the earth during its decrease as its increase, its power of attraction must be the same in both cases; and consequently all the different effects which tradition has ascribed to the waning and the waxing moon must be visionary.

The maturity of timber is quite another thing; and probably of more importance than the time of felling it. There is a point of ripeness when trees acquire their greatest solidity, strength and durable quality for timber. The late Dr. James Anderson,* says—“It is now well known that the best fir timber which comes from Riga, and other places on the Baltic, is the produce of the same tree that is commonly cultivated here [in Scotland] under the name of the *Scotch fir*; but having grown more slowly in those countries than the planted trees do here, and having been allowed to attain a much greater age, that wood is beyond comparison closer and four times at least more durable, in any kind of work, than the young raw deals [boards and planks] which are made of wood the usual growth of this country.

Dr. Anderson, in early life a practical farmer, a man of letters, and an ingenious and philosophical observer of nature, appears, nevertheless, to be entirely mistaken in his ideas of the cause of the hardness and strength of wood, and in ascribing to the same cause in part, its durability. Mentioning the rings in trees which

mark their growth, he says—“as one of these rings is added to the circumference of the tree each year of its growth and forms the whole increment of the tree for that year, it follows, that the less that increment is, or in other words, the slower the trees grow, the less will be the breadth [thickness] of these rings, and of course, the closer the grain of the wood, and the harder also it will be.” Just the reverse of this is the fact. Every farmer and carpenter, in the United States, knows that the thicker the annual ring, or, in the common language, the larger the grain, the harder and stronger is the wood. Hence the butt-cuts of white oak are preferred for the spokes of wheels, and of hickory for axe helvies. Every wood-chopper also knows how much easier it is to fell and cut up the trees growing with small grains in a close forest, than trees of the same kinds which have grown singly and faster in open grounds. And every man who has used husbandry tools, a fork or rake for instance, whose handles are of ash, knows how much harder, stronger, and heavier, because more solid, they are when made of timber with large grains, which had grown fast in good soils, or at such distances from tree to tree as not to rob one another of their food,—than when of small grained slow growing timber. But the timber of trees, pasture oaks for instance, standing singly and at distances from others, and which are of rapid growth and consequently with large annual rings, or grains, though twice as tough and strong, is found, I have long understood less durable than the timber of oaks of slower growth. The reason is obvious. The oaks in forests do not attain the sizes fitting them for ship timber, until they have reached the age of maturity or ripeness. In this state they may probably continue stationary for some years: but if left standing for many years after they are of full age, the toughness and strength of the wood are greatly impaired. But pasture or other fast growing oaks, attaining, in much fewer years, sizes suitable for ship-building and other uses, are sometimes cut down before they come of age, before they are mature, or perfected by time: and hence the earlier decay of such timber. The fact stated by Dr. Anderson, in comparing the “raw” *Scotch* and the mature *Baltic* firs, exemplifies this doctrine. And in correspondence with it, I will mention a maxim which probably had been handed down from generations, and was repeated to me by my father when I was a boy, upwards of sixty years ago, which I perfectly remember, and have repeated to others: “My father used to say (so the maxim was introduced to me) young wood for fire, old wood for timber.”

In reference to the memoir of M. Buffon, before mentioned, the authors of the British Encyclopædia, say that “By many experiments, particularly described in that essay, it appears that the tree should not be felled till the third year after it has been stripped of the bark; that it is then perfectly dry, and the sap [sap wood] becomes almost as strong as the rest of the timber, and stronger than the heart of any other oak tree which has not been so stripped: and the whole of the timber stronger and heavier,* and harder; from which he thinks it fair to conclude, that it is also more durable.” And they

* If heavier when of the same bulk with common timber, its fibres must lie closer together, be therefore less pervious to moisture, and consequently more durable.

add, that “the navy board, in answer to the enquiries of the commissioners of the land revenue in May, 1789, informed them that they had then standing some trees stripped of their bark two years before, in order to try the experiment of building one half of a sloop of war with the timber, and the other half with timber felled and stripped in the common way.”—“We are sorry that we are not able to inform our readers of the result of the experiment.”

Commodore Porter and his colleagues of the American Navy Board, may have it in their power to make, and carry into complete effect the same experiment. So may farmers possessed of timber trees. To render the experiment more fair and conclusive, trees as nearly as possible of the same size, and growing in the same soil, should be selected. Growing in the vicinity of each other, the equality of size will be an indication of an equality of age,—a point probably, of material importance.

These experiments I hope will be made extensively by farmers, in preparing their trees for fencing, and for carts and other implements much exposed (often unnecessarily) to all changes of the weather. For however plausible theories may appear, careful experiments alone can determine their correctness.—Experiments by farmers may very easily be made, in their fences; by having some panels (or lengths of rails) of timber prepared in one way and then a like number of timber prepared in the other. At the same time too, they can try an experiment to ascertain whether, in post and rail fences, the rails, with their heart edges downwards, will last longer (as the commodore supposes) than with those edges upwards, in the mode universally practised. He suggests that the concentric rings (the annual growths) in trees split into rails, and these placed in fences with their edges upwards, form so many cups or hollows, into which the rains and dews falling on the rails enter; and having no other way to escape, soak through the rings to the sap wood and bark on the under side, and thereby hasten the rotting of the heart wood above. I much doubt the correctness of this theory. Rails placed with their heart edges upwards, have very steep roofs, by which water speedily runs off. Their heart-wood soon seasons, and its surface becomes close, without visible cracks. But place the broad bark side upwards, the falling water rests longer upon it, and enters the sap wood, often an inch or more in thickness, and as soon as this shall become rotten, it will be a sponge to receive and hold water, to soak into and gradually rot the heart-wood below. Such is my view of this subject: but let experiments be made. For the purposes of the navy, or other shipbuilding; experiments may also be easily made; though not so satisfactorily as by constructing a vessel with the two sorts of timber as designed by the English Navy Board. An equal number of pieces of timber felled in the two different ways, may be dressed to the same sizes, and equally exposed to the weather in all its changes; and to expedite the result, they may be often immersed in water, so as to be almost daily wet and dry.

Hickory (in New England generally called Walnut) grows in many parts of our country. It is a tough and hard wood; but when exposed to the weather, soon decays; yet may, it seems be advantageously used in salt waters infested

with worms. Eighteen or twenty years ago, passing by a saw mill placed on tide water, I observed some hickory planks. I asked the awyer for what use they were intended. He answered, for the sluice ways or other water works, of tide mills; because, not liable, like oak, to be eaten by the worms. Passing a few days ago by some tide mills on the same streams, I mentioned the fact just stated to one of the proprietors. They continue to use hickory for the same purpose, because, said he, "the worms on't touch it." Any person inclined to make trials of this wood for such purposes may previously ascertain the fact, by sinking two pieces, one of oak and the other of hickory, in waters where worms are known to abound; and after a few months taking them up again.

TIMOTHY PICKERING.

Salem, Sept. 10, 1821.

From the New England Palladium.

DOMESTIC COFFEE.

I have learned, to my great concern, that the good people of Boston, and some parts of its vicinity, have lately acquired the practice of using what they call "Domestic Coffee," by way of economy; and after making some inquiry concerning it, I find some of it to be a compound of half Rye and half imported Coffee round together. When I made this discovery, was at no great loss to account for the vast number of persons, who, of late, have suffered much from weakness in their limbs, and debilitated systems. Rye is peculiarly calculated to produce that effect, in whatever way it may be used—more especially when it has been roasted and ground with coffee where every particle of fluid is extracted and absorbed in the coffee. Let Rye be ground into meal, and bread made of the meal be eaten without sifting, and will have an effect similar to opium. Let the bran be given to pigs, and it will make them lie down and swell with weakness; but a person may eat of the fine meal without witnessing any ill effects. The reason of this is, that the debilitating fluid is attached to the hull of the grain.

Let a horse eat as much Rye as he will, and will destroy him, by taking away first the strength of his limbs, and then that of his whole body.

A Friend to Health.

HYDROPHOBIA.

The Baltimore Chronicle gives an account of a distressing case of the hydrophobia which occurred in that city last week. Mr. Samuel Dunham, who was bitten by a mad dog nine weeks since, died on the 20th ult. in horrid agonies. He was convulsed in every joint; rothed at the mouth; and it required the strength of two men to hold him in his bed—withstanding he was bitten so long ago, it was only on Thursday last that he exhibited decided symptoms of the hydrophobia, and before Friday night he was a cold corpse. The deceased, amidst all his spasms and agonies, retained the clear possession of his reason to the last. He has left a wife and several children.

A Cucumber grew this season, in the garden of Mr. Lovell Eames, in Framingham, measuring 18 inches in length and 7 inches in circumference.—*Statesman*.

To the Editor of the American Farmer.

FOUNDER IN HORSES.

Paris, Bourbon Co. Ky,

Dear Sir,

After a journey devoid of interest, owing to the lateness of the season, I have arrived in Kentucky, and being desirous of communicating a cure for "Foundering," recently known; I make one effort to conduce to the value of your present work, the American farmer.

One of the writers in your "Farmer" calls foundering, "chills and founder," and compares it to inflammatory rheumatism; I apprehend he does not understand the disease in all its stages;—it evidently proceeds from *surfeit*. A horse rode until heated and fatigued, and fed too plentifully while warm and hungry—and swallowing his food too greedily, that he may lie down and rest his wearied limbs;—and the stable being wet or damp, and the horse in a copious sweat, are reasons the best that can be given, for the formation of the disease.

Instead of rising up refreshed, the poor animal is stiff and useless. If he had got leave to cool perfectly, and been fed sparingly, he would have escaped this sore complaint.

The cure is a lump of alum the size of a walnut, reduced to powder and dissolved in warm water; the horse must be drenched with this liquid, which in a short time will throw him into profuse perspiration, and he will be able to pursue his journey the next day, and if not badly foundered, in a few hours.

You will keep it out of sight that this communication comes from a woman, as I wish to escape the

"World's dread laugh, which scarce

"The firm philosopher can scorn."

Yet it is a fact that I always prized fine horses, and endeavored, by every means in my power, to alleviate their pain.

Pray do not put yourself to the expense of sending seed you have to purchase. I hope you received the last seed I sent you enclosed in a letter from Missouri, particularly the "Prairie Sensitive Plant" seed.

P. S.—The valuable remedy for the founder was communicated by Col. B. Chambers, who experienced its good effect on his own horses, and others.

The authoress of the above is amongst our most valued and useful correspondents, worth a million of indolent men, who neither write nor think any thing useful to society—and yet who call themselves the Lords of the creation—acting the while the part of sluggish drones—*fruges consumere nati*.

From the New York Mechanic's Gazette.

AMERICAN SILK GOODS.

Mr. Jas. Read has done us the favor to call at our office to show a piece of elegant blue striped silk, manufactured by him for a suit of chair and sofa coverings, for the Hon. Mr. Crawford, secretary of the treasury. It is made of Italian and American silk, the latter of which is made at Mansfield, Con. where we understand that the silk worm is cultivated to a considerable extent. Mr. Read's vest patterns, and watch chains have heretofore received public notice; they are said to be equal to the best English, and can be afforded on equal terms, but the specimen of silk above referred to (about forty

yards) far surpasses any thing we expected to see of domestic manufacture for many years to come, and is a flattering specimen of taste and ingenuity, which cannot fail to meet with encouragement. We hope that Mr. Read will be favored with similar orders from our wealthy citizens, who can have their taste gratified with any color and pattern they may select.

From the Boston Patriot.

DOMESTIC WINE.

We are informed that an enterprising agriculturist in Newton, through whose attention and application to the raising and cultivating of fruit trees many of the farms and gardens in the vicinity of our city have been furnished with the best of fruit, has this season manufactured seven hundred gallons of Currant Wine. This, it will be recollected, is manufactured by one individual. Should the same spirit of enterprise prompt one individual in each town in the Commonwealth to produce an equal quantity of this pleasant beverage, we should soon need no importations of common wines, but might rely wholly upon the product of our own gardens, for a supply for domestic consumption.

On Monday, says the Newark, N. J. Centinel, we were presented by Mr. Leonard Richards, with a Green Gage, (a species of plum) of an extraordinary size. It measured six inches in circumference, and weighed 2 1-2 ounces.

From the Hampshire Gazette.

Tobacco.—Experiments are making in Pennsylvania with the Cuba Tobacco, so celebrated for its fine flavor; it promises well and several loads have been cut and housed; some of the leaves are 25 inches long, and 16 broad. This kind of tobacco is said to be worth \$80 per hundred in the Havana.

Cattle.—It is stated in a Hamburg paper of April last that two oxen raised in the county of Holstein Ditmarsen, Germany, weighed, after being killed, as follows. Largest ox 4452 English pounds, the second 4034 pounds.

Leeches.—It is stated in a London paper that a gentleman after applying eight leeches to an inflammation, deliberately cut off their tails; notwithstanding which they continued to adhere as before, whilst the blood poured thro' them in an uninterrupted stream. The editor observes that these leeches resemble some state leeches, called ministers of state.

The following experiments were made with a thermometer, at the Navy Yard, in Norfolk, Va. on the 2d inst.

At half past 11 the temperature in a house was 83 degrees. The thermometer was then suspended in the open air, sheltered from the rays of the sun by a *brown linen* umbrella, when it rose in a few minutes to 93. It was next placed under a *silk* umbrella, and in the same period rose to 97. Exposed to the sun it stood at 142.

A very general alarm prevails respecting the danger from canine madness. Measures to afford greater security to the Citizens have been adopted in most Cities, and are conceived by many, to be greatly needed in this.

Palladium.

FACTS AND OBSERVATIONS RELATING TO
AGRICULTURE & DOMESTIC ECONOMY.

POTATOES

Should be dug and housed as soon as they are ripe, and before the vines are entirely dead. In this state they generally adhere to and may be pulled out of ground with them; but if they remain in the ground until the vines are quite dead they separate from the vines, and the expense of digging them will be greatly increased. A sort of an hoe, with prongs or claws like a fork, and fixed at the end of an handle like a common hoe, and which may be had at the Agricultural Establishment of Lincoln Fearing & Co. No. 20, Merchant's Row, near the old Market, Boston, is said to be very useful, and much superior to the common hoe for digging potatoes, as well as for various other purposes.

It is said that a very good kind of fodder for horned cattle may be made of potatoe tops, by spreading and drying them on grass ground in the vicinity of the potatoe field. We are told that in the Southern states, they reap about two thirds the length of the potatoe tops, and dry them on mowing land in the usual way of hay-making. Several tons may thus, sometimes, be collected from an acre, and no damage be done to the potatoes, if the tops are not gathered till the potatoes are ripe.

The following method of preserving potatoes was communicated by Mr. Millington (England) to the Society for Bettering the Condition of the Poor:—

I caused, (says this gentleman) three pounds and a half of potatoes to be peeled and rasped; then put in a coarse cloth, between two boards, and pressed them into a dry cake, hardly so thick as a thin cheese. They were then placed on a shelf to dry. There was about a quart of juice expressed from the potatoes. To this was added about a like quantity of water, and in about an hour it deposited more than sixty grains of white starch or flour, fit to make pastry. A cake of this was prepared and sent to the Society. In bulk it occupied only a sixth of the compass of the potatoes; in weight it had lost about two-thirds by the process; but the cake, when dressed with steam or otherwise, will produce nearly the same quantity of food as three pounds and a half of potatoes, properly dressed for the table would do. Some potatoes, quite frozen, have been prepared this way, and the cake was perfectly sweet; whereas some of the same parcel that were left, and not pressed, were spoiled in a few days.

PARING AND BURNING.

A new method of "burning without fire" has been lately discovered. This consists in substituting quick-lime for fire. The lime in its most caustic state, fresh from the kiln, is laid upon the vegetable surface to be consumed; and before it is weakened by exposure to the air, a quantity of water just sufficient to put it in powerful action, is applied. This process unites the advantages of burning and liming, and is probably the readiest and cheapest mode of fertilizing soils, which superabound with vegetable matter, and for which lime would prove a suitable manure.

French mode of making Brandy-Peaches.

Preserved fruit is generally cloying, and often times unwholesome to the stomach, because

of its *unmixed sweetness*, arising from the manner in which they are usually prepared.

The most grateful preparation of the peach we have ever seen, is that which is accomplished by the following process:

Scald them in hot water, then dip them in hot strong lie, rub them with a cloth and throw them into cold water; make a syrup of 3-4 of a pound of sugar to one pound of fruit, and when cold put in an equal quantity of brandy.

Amer. Farmer.

BUTTER.

The following is given as an improved method of preventing the bitter taste which butter has from cattle feeding on turnips, cabbages, leaves of trees, &c. Boil two ounces of salt petre in a quart of water, and put two or more spoonfuls, according to the quantity of milk, into a pail before milking; if this is done constantly, it will prevent the taste of turnips, but it will not be effected if even once neglected. This has been proved by twenty years experience, and if it does not succeed the farmers may rest assured that the fault arises from the neglect of their dairy maid.—*ibid.*

"To generate the best kind of seeds, the most healthy plants must be chosen, and those which are most early in respect to the season; these should be so insulated, as to have no weak plants of the same species, or even genus, in their vicinity, lest the fecundating dust of weaker plants should be blown by the winds upon the stigmata of the stronger, and thus produce a less vigorous progeny.

"When new varieties are required, the male dust of one good variety, as of the nonpareil apple, should be shed upon the stigmas of another good variety, as of the golden-pippin; and it is probable that some new excellent variety might be thus generated."

Darwin's Phytologia.

Working Oxen.—When oxen refuse to work equally well on either side, or when they pull off against each other, yoke them on the side you wish them to work, and turn them out to feed in that way; they soon become accustomed to it, and work afterwards on either side alike.—*Amer. Farmer.*

Dr. Lettsom observes that in general, pies are more advantageous than roasting or boiling. This he illustrates. Of mutton, 64 ounces in a *pye*, made with 24 ounces of wheat flour, and eaten with 3 1-4 ounces of bread, in all 96 1-4 ounces, dined eight persons fully; whilst 60 oz. of mutton *roasted*, and eaten with 33 ounces of bread, in all 93 ounces, dined only five of the same persons.

Potatoc Pudding.

12 oz. of potatoes, boiled, skinned and mashed,
1 do. suet,
1 do. milk, that is, two spoonfuls,
1 do. cheese,

Mix all together with boiling water to a due consistence. Bake it. Instead of cheese, there may be an ounce of red herring pounded fine in a mortar.—*Lettsom.*

Potatoc Bread, in England.

A skillet of potatoes, with cold water is hung at some distance over the fire, that the water may not boil, till the potatoes become soft.—Then skin, mash, and mix them with their weight of wheat flour, and also with the yeast,

salt and warm water wanted. Knead all together. Lay the mass a little before a fire to rise; then bake in a very hot oven. Flour of rice or barley may be used instead of that from wheat.

Another mode is given by the *Board of Agriculture*. It directs, to select the most mealy sort, and boil and skin them. Break and strain 12 lbs. of potatoes through a very coarse hair sieve, or a very fine one of wire, so as to reduce the pulp as near as possible to a flour. This quantity makes nine loaves of 5 lbs. each in dough; or when baked about two hours, 42 lbs. of excellent bread.

Dr. Fothergill says, if potatoe bread is cut before it is a day old, it will not appear enough baked; because of the potatoe moisture. He adds, never slice potatoes with a knife, raw or boiled, but break and mash with the hand or a spoon, otherwise they will not be soft.

Doctor Lettsom next proceeds to give the best soups; according to Mr. Justice Colquhoun.

1. *Potatoc Soup.*—Colquhoun.

Stew 5 pounds coarsest parts of beef or mutton, in 10 quarts of water till *half done*. Add a quantity of potatoes skinned, and some onions pepper and salt.—Stir frequently and boil enough. Bones of beef added would increase the soup in richness or quantity.

Estimate in mills.	5 lbs. coarse beef at 60 mills	300
	Bones, to enrich it	50
	Potatoes 24 lbs. or 1-3 bushel	2
	Onions, a bunch	6
	Pepper and Salt	6
		490

It gives 10 quarts of soup, meat and potatoes and dines 10 men at nearly 5 cents. A *red her ring* is said to be a good substitute for onions pepper and salt; but red pepper may be added.

II. *Barley Broth.*—Colquhoun.

It admits of a mixture of almost every kind of garden vegetable, and is never out of season. Onions or leeks and parsley are always a part of the ingredients; besides which, cabbage or greens, turnips, carrots, and peas may be added. A teacup of barley suffices for a large family.—*Pearl barley* is dearer, yet not so good as the *common husked* or *Scotch dressed barley*. Water 4 quarts, beef 4 pounds, with bones, barley ounces, [Count Rumford says *barley meal* is better than whole barley for thickening broth, and making it more nourishing.] Stew all together two hours. Then add the herbs cut small, an salt. The whole then *boils* till tender. Skir off the fat or not, as you like it. Onions or leek must not be omitted.

III. *A plain good food, with very little meat, as wholesome as can be obtained from wheat or barley.*—Colquhoun.

Cut half a pound of beef, mutton or pork, in to small pieces; add half a pint of peas, 3 slices turnips, and 3 potatoes cut very small; an onion or two, or leeks.—Put to them 7 pints of water and boil the whole gently, over a slow fire for 2 1-2 hours. Thicken with a quarter pound of ground rice, and one-eighth pound of oat meal (or 1-4 lb. pound of oat meal or barley meal without rice.) Boil 1-4 hour after the thickening is put in, stirring it all the time. The season with salt and pepper, or ground ginger. As only a pint will be lost in boiling, it is a meal for 4 persons, and will cost 2 cents each person.

IV. Cut into very small bits, 2 pounds of beef, mutton, or pork, out of the tub, or hung beef

reshened in water; and put them in a pot with six quarts water. Boil *slow* near three hours, or rather *stew* till tender. Add 1-4 lb. carrots or parsnips, and 1-2 lb. turnips, all sliced small. Sometimes instead of them a few potatoes sliced; also add some greens, cabbage, cellery, spinach, parsley, and two ounces onions or leeks. Thicken with a pint of oat meal, (or a quart to make it very thick.) Boil it well together, and season with pepper or ground ginger and salt. It will serve a family of six for a day. Or it may be thickened with any kind of meal, or barley, peas, beans or rice.

V. Take 4 lbs. beef, onions 3-4 lb. turnips 2 lbs. rice 1 1-2 lbs. parsley, savory, thyme, of each a large handful, pepper and salt; water 17 quarts. Cut the beef into slices, and after boiling it some time, mince it small. The turnips and onions infused, and sweet herbs may be minced before they go to the pot. Boil the whole *gently* together about three hours on a *slow* fire. Scarcely two quarts will be wasted in boiling. The rest will serve 18 persons for one meal. Cost 2 cents each.

Where fuel is scarce, the materials in the three above receipts may be stewed in a pot, all night, in an oven, and will next day require but a quarter hour boiling.

VI. Bake in an earthen pot, a shank of beef, in six quarts of water, with a pint of peas, a leek, and four or five turnips sliced.

COW.

The principal distinguishing marks of a good Cow are said to be these: wide horns, a thin head and neck, dew lap large, full breast, broad back, large deep belly; the udder capacious but not too fleshy; the milch veins prominent, and the bag tending far behind; teats long and large; buttocks broad and fleshy; tail long, pliable and small in proportion to the size of the carcase, and the joints short. To these outward marks may be added a gentle disposition, a temper free from any vicious tricks, and perfectly manageable on every occasion. On the other hand, a cow with a thick head and short neck, prominent back bone, slender chest, belly tucked up, small udder or a fleshy bag, short teats, and thin buttocks is to be avoided, as totally unfit for the purposes either of the dairy, the suckler or the grazier.

The milch cow is generally in her prime at five years old, and will continue in a good milking state till ten years of age or upwards. Cows should be milked regularly, morning and evening, and always as nearly at the same hours as may be. Some have recommended milking them three times a day, at five, one and eight; and it is said if they are full fed they will give half as much again milk if milked thrice as if only twice a day. Those farmers who would make the most of their cows should provide a bull to run in the herd.

ON STALL FEEDING.

"Stall feeding of bullocks with potatoes, given in different states of preparation, has been for some time extensively practised in Sussex, and is much approved of by many. They there find that a beast of from one hundred and forty to one hundred and sixty stone* weight eats from one to two bushels of the roots in the course of the day, but consumes but little hay, or not much more than ten or twelve pounds in

that space of time." "And a careful experimenter, who was largely in the practice of fattening oxen with them, it is said, gave them up—from the conviction that with every advantage of breed, attention, warmth, and cleanliness in regard to the animals, they would not pay more than four pence the bushel."

"Further, the Swedish turnip when it is cultivated in a proper manner, is a most valuable root, when used with this intention."—"In some trials which we have lately attended to, it was found to have the advantage, nearly in the proportion of one fourth; and in other experiments, it is said to have gone still farther in this use."

"And the proportion in which they are consumed by the fattening stock, has been found to be something more than a third of the weight of the cattle by some; but by others, about a third in the day, as stated in the Gentleman Farmer. However, in other experiments carefully made, an ox of from seventy to eighty stone has been ascertained to eat something less than three hundred weight in the course of a day, besides chaff and hay; and small cows of about thirty stone, one hundred weight and three quarters in the same time. And in the Rev. Mr. Close's trials it was found, that when consumed in stalls and sheds, an acre of good turnips, will completely winter fat an ox of fifty score;"—

"When this root is given in the stall, from its very succulent nature, it becomes necessary to employ as much dry food as possible during the use of it, in order to the expeditious fattening of the cattle by such means."

Rees' Cyclopaedia.

Cud lost by an ox or cow, —REMEDY FOR.

Mix together an equal quantity of sour leaven and common salt, then add a piece of loam or brick clay, equal in weight to the whole: break and mix all these well together, and then add as much urine as will serve to beat it up into a paste. Make this into two or three balls as big as the creature can swallow, force one of these down his throat every three days and it is said it will effect a cure.

Receipt for American Tokay.

A barrel of good new cider from the press. Let it ferment, carefully brushing off the froth, as it comes out of the bung-hole. When the fermentation ceases, draw it off and add as much honey as will give it strength enough to bear an egg; return it to the barrel which should be washed clean. It will now undergo a second fermentation, which must be treated as the first, and when that ceases, add half a gill of French or peach brandy, for every gallon. Bung it tight and so let it remain until the March following, when in a calm, clear and dry day, it should be bottled.—*Amer. Farmer.*

MASSACHUSETTS AGRICULTURAL REPOSITORY AND JOURNAL, FOR JUNE.

(Continued from p. 11.)

The next article to those which we have before remarked upon, has the signature, "*A Roxbury Farmer*," and is entitled "A comparison of the present with some past seasons." This article we have given at large in the 1st No. p. 2. It appears to be one of a series of similar notices which have for a number of years been published by the same author. Such a Kalendar, regularly kept from year to year, cannot fail of proving of great importance, "if cultivators, instead of consulting the almanack will attend to the indications of nature."

Dr. Deane, in his *Farmer's Dictionary*, observes, "That great naturalist Linnaeus, did not approve of farmer's confining themselves to certain set days, or weeks, for committing their seeds to the earth. The seasons are much forwarder in some years than in others; therefore, he, who thus governs himself, will assuredly sow his annual seeds sometimes too early and sometimes too late."

"That a better practice might be introduced, he recommended it to his countrymen to take notice at what time the trees unfolded their leaves, &c."

"In order to reduce to practice so ingenious a hint, an account should be made out of the first leafing, and I may add the blossoming of a variety of trees and shrubs. I suppose trees and shrubs to be most suitable for this purpose, as they are more deeply rooted, and therefore more steady and uniform in their appearances, than any plants which are perennial only in their roots. They are especially much more so than annuals."

"It is certain that such an account taken in one place will not answer alike for every part of the country; because the vegetation in every part is not equally forward. Therefore, I would earnestly recommend, that in each degree of latitude, throughout New England at least, some attentive naturalist would make a list of a considerable number of trees and shrubs, which are near at hand; carefully watch their appearances, and minute the times of the first opening of their leaves, and also of their blossoming. By comparing the accounts, the absurdity will immediately appear, of sowing the same kinds of seeds at the same time of the month or year, in the 42d, 43d, 44th and 45th degrees of latitude."

"When these accounts are obtained, let trials be made by sowing a certain kind of seed before, at, and after the foliation, or the flowering of some particular plant, and the produce compared. Let accurate experiments of this kind be yearly repeated, with all the most useful spring plants; by this, in a few years, complete kalendars may be obtained for every degree of latitude in this country. The consequence will be that the farmer will be able to read the true times of sowing by casting his eye upon the trees and shrubs that are about him. We have already such a rule as this with respect to Indian corn; but it perhaps ought to undergo a further examination."

"But such rules, after all that can be done, ought not to govern us invariably. The right times of seedling admit of some latitude, on account of the degree of dryness of the soil, and of its exposure to the solar warmth. Land should have the right degree of moisture when seeds are sown on it; and a southern exposure will afford an earlier vegetation than a northern."

The statements and views of *A Roxbury Farmer*, are ably corroborated by the writer of the next article, who uses the signature "INDICATOR." This gentleman remarks that

"If each farmer or gardener will make his own observations within his own grounds, and always upon the same plants, while in health, and under the same degree of cultivation; and make his notes with care when the state of the blossom is at the same stage of forwardness, there can be no doubt of its correctness. Let him take his own asparagus bed as an index of the warmth of the ground in the early part of May, and he can judge with great correctness, provided the asparagus bed be always forked and dressed on the same day, or nearly, in the month of April, and with the same quantity and quality of manure: for on this plant the warmth of the soil acts immediately on the root alone, and therefore there can be no better guide for

* Meaning probably eight pounds to the stone.

ascertaining the temperature of the ground at that season. If we can plant corn and squash seed the middle of May when the asparagus is in a state to be cut the 7th of that month, why not plant those seeds the 7th when the asparagus is fit to cut the first of May? A peach tree, cherry tree, or a plum tree in good health, is also a fair indication of the temperature of the earth, as is the apple and pear tree, if always kept in a good state, or in a cultivated or ploughed piece of ground; but in the orchard, where the grass is allowed to check the circulation, three years out of five, trees are not so correct an index as the asparagus bed, or as they themselves are when growing in a garden or ploughed field where the ground is always open, so that the rays of the sun and the warmth of the atmosphere enter with less obstruction.

"I have said that the same plant should always be taken as the standing index, because peaches, for instance, of different sorts or varieties, and cherries of different sorts, as well as pears and other fruits, open their buds and blossom sooner or later according to the respective habits of each individual or variety; so that a person who should take one year an early peach, and the next the late peach as his index, might find himself very far from correct.

"With respect to the rains which prevail in the month of May, by which seeds are rotted in the ground, I apprehend that if the ground be warm enough to excite the germ of the seed early in May, it will as soon be out of danger from rot, as if it be planted the middle of May; for the rains prevail as much towards the last as the first of the month. And as respects the late frosts which are dreaded so much by many people when the spring is early open, I confess, that so far as my own observation goes, I should fear it less when the spring is forward than when it is tardy. I don't mean to say that premature heat, which we sometimes have, is not like to be followed by frosts in May; but when the spring continues to put forth new evidence daily of its settled state in a regular and natural manner, so as to bring forward vegetation early, and with unusual vigor in May, I think there is much less danger of late frosts than when the cold blasts from the Canada borders are constantly interrupting its progress—because in one instance the earth is gradually warmed, and creates within its influence a warm atmosphere that prevents frost from taking place; whereas in the other case the earth continues cold, and the temperature of the atmosphere near its surface is less capable of resisting the night chilling dews which fall upon the young plants that are putting forth. I believe that if recourse be had to the state of the weather for any ten years together from the 25th March to the 5th May, it will be found that late in the season frosts have occurred much more frequently when the average temperature of the spring months has been below rather than when it has been above any given point."

We think with the above quoted writers that it would be a matter of but little difficulty for every farmer to make himself a *Vegetable Almanack*, from the productions of his own soil; and thus turn, as it were, the *Book of Nature* into a *Perpetual Calendar*. This might be done without any reference to the artificial devices of time, as set down in common almanacks,

and, we think, would prove not only simple, but correct and useful. For example:

The Gooseberry buds begin to swell,	{ Sow early peas.
Willow buds do. do.	{ Sow flax, oats, Spring wheat and Spring rye.
Lilac do. do. do.	{ Plant potatoes, early use.
Asparagus fit for table,	{ Plant a potatoe patch, also some pumpkins near your hog sty.
Currants put forth leaves,	{ Plant garden beans.
Apple trees blossom,	{ Sow carrots, beets, &c.
White oak leaves as big as a mouse's ear,	{ Plant Indian corn.*

We give the above as something like the form which might be adopted for the purpose of enabling the young and inexperienced agricultor to adopt some general rules for seeding his grounds. The substance of the Calendar must be established by actual observation, and be the result of good sense operating upon experience.

An advantage, which perhaps has not been adverted to, may be anticipated from recording annually articles like that of *A Roxbury Farmer*, in which the times of the annual budding and flowering of plants are noted. The practise will afford data for ascertaining with considerable precision the effects of cultivation as regards climate. Some philosophers tell us that by depriving the earth of its forests, and opening its surface to the more direct influence of the sun's rays, the springs come on earlier upon an average, and the mean temperature of the climate is increased. Others deny these positions, and say that the mean temperature of the climate can neither be increased nor diminished by any changes on the earth's surface, as the quantity of caloric emanating from the sun will be the same in corresponding latitudes, whether such surface be comparatively rough or smooth; and that when we expose the earth to the more direct impulse of the solar rays, we likewise deprive it of a mantle which covered it in some degree from the frigid influence of those northern blasts which so often bid "winter chill the lap of May."

(TO BE CONTINUED.)

* This we believe is the Indian maxim alluded to by Dr. Deane as above.

NEW ENGLAND FARMER.

BOSTON:—SATURDAY, AUGUST 17, 1822.

The Editor would be happy to make his best acknowledgments acceptable to certain conductors of newspapers and others whose talents and stations give them influence, for the favorable notices which they have taken of this establishment. The indications of good will, and expressions of approbation, with which he has been honored, having been received from gentlemen well qualified to appreciate the value of literary and scientific efforts, cannot fail to add stimulus to industry, and elicit every possible effort to realize the favorable anticipations which appear to be entertained by men, the acquisition of whose good opinion is an object of high and laudable ambition.

Among those to whom we are under great obligations for announcing our paper in terms well adapted to introduce it to general patronage, we shall hold in grateful remembrance the Editor of the *Manufacturers' and Farmers' Journal*, a valuable paper, printed at Providence, R. I. We hope we shall not be accused of egotism in giving the following extract from an editorial article which appeared in that paper of the 12th inst. since it relates principally to our *object*, which it cannot be arrogated in us to pronounce to be laudable.

and gives, among other topics, a lucid exposition of the benefits which cultivators may hope to receive from the *New England Farmer*, by making it a channel for communicating to the public their own discoveries and improvements.

"There are many good reasons for the establishment, in the northern section of our country, of a paper mainly devoted to the interests of Agriculture. The most prominent is, the great difference between the climates of the Southern and Northern States. This difference, requiring the cultivation, in one section, of crops which cannot be cultivated with advantage in others, produces, of necessity, different systems of farming. Every enlightened cultivator, wherever he may live, has a system of his own, adapted to the peculiar situation of his land, as well as to the general character of the climate under which it lies; which system is the result of experience. A number of such men stipulate, for their mutual benefit, that each shall communicate to the whole, the result of his own experience, and to make a paper, like the one under consideration, the vehicle of communication. Now the utility of such an agreement depends on the limits which are prescribed to it, and the fidelity with which it is executed. It is plain, that those only who cultivate the same crops can be mutually serviceable to each other. The planters of Georgia and Carolina, whose crops consist principally of cotton, rice and sugar, cannot communicate much useful information to the farmers of the northern and middle states, who cultivate grain and keep large stocks of animals, in a climate where the season is from two weeks to two months shorter than it is with them—nor can they learn of the latter any thing which may be generally useful in their planting. The difference of soil and climate, even between the northern and middle states, is so considerable, as to require, in the one, a system of cultivation, widely different from that which is practised in the other. In every section of our country, therefore, distinguishable from the others by peculiarities of climate and soil, and following a system of husbandry materially different from the systems in practice elsewhere, there ought to be established a paper which should be made a common medium, through which every experienced farmer may convey to his brethren the result of his own experience. This paper should be supported and made useful, by a punctual payment of the subscription money, and by a constant supply of original matter."

Since the above was in type we have been indebted to the kindness of Mr. SKINNER, of Baltimore, not only for the common civility of a proffered exchange of papers, but for a complete file of the current numbers of the 4th vol. of that excellent work, the "*American Farmer*," together with an elaborate index of the 3d volume, containing three printed sheets. To these highly valued favors is added a friendly letter, in which is evinced a disposition to "strengthen our hands and encourage our hearts," in the duties of our present employment. We are happy to be assured of a fact, (which indeed we had anticipated from Mr. Skinner's reputation for liberality and regard for the interests of the community,) that the able Editor of the *American Farmer*, a publication, which has, not only given a highly beneficial impulse to American agriculture, but whose establishment may be considered as the commencement of a new and brilliant era in its annals, is willing to regard us as a coadjutor, worthy to second his efforts in "extending the knowledge of all discoveries in the science, and all improvements in the practice of Agriculture and Domestic Economy." Mr. Skinner's approbation cannot fail to be of essential advantage to us, and we would tender in return our tribute of gratitude, and proffer the best services in our power to render to him or his establishment.

COOKING FOOD FOR CATTLE.

Among the most useful improvements of modern husbandry may be numbered the practice of steaming or boiling food for domestic animals. Some account of the origin of this practice in Great Britain may be

found in the "Complete Grazier," an excellent English work of high authority, from which the following is extracted.

"Steamed food may be given to milch cows with great advantage. For this important fact in rural economy, we are indebted to the ingenious and persevering experiments of J. C. Curwen, Esq. M. P. whose attention to the comforts of his tenants, and judicious zeal for the improvements of agriculture are too well known to require any eulogy. In prosecution of a system which he had long practised of giving cooked food to animals, Mr. C. turned his attention to the cheapest mode of supplying milch cows with it; and in a communication to the society for the encouragement of arts, &c. (which was honored with their lesser gold medal) he states his belief that he has at length been completely successful. He uses a steam boiler of 100 gallons contents,* on each side of which are fixed three boxes, containing 11 stones† each of chaff, (the husks of wheat, rye, &c.) which, by being steamed gain more than one third of their original weight. The steam is conveyed by various stop cocks into the lower part of the boxes; and thus two or three boxes may be steamed at the same time; the quantity of fuel required is about 2 lbs. for each stone of chaff.

"In giving the steamed chaff to the cattle, 2 lbs. of oil cake are mixed with one stone of chaff; and the milch cows are fed with it morning and evening, having an allowance of one stone at each time. On being taken from the steamer the food is put into wooden boxes, which are mounted on wheels to be drawn to the place where it is intended to be used; and the chaff requires to stand some time before it is fit for use.

"The average of milk on a stock of thirty-six milch cows, was nearly 13 wine quarts, for 320 days. The cows were never suffered to be turned out; and to prevent their being lame, their hoofs were properly pared, and they stood with their fore feet on clay. One great advantage attending this method was, that most if not all the milch cows were in such a condition that, with a few weeks feeding after they were dry, they became fit for the shambles, with very little loss from the first cost. As a substitute for chaff and oil cake, Mr. C. recommends cut hay; which, when steamed, would make a much superior food, and he entertains no doubt would greatly augment the milk, as well as benefit the health of the animals. Mr. Curwen gives cooked food from October to June, nearly eight months out of twelve, and his plan of treatment has been adopted by several farmers in different parts of the kingdom with great success."

The practice of cooking food for cattle is by no means a novelty in New England. A simple apparatus or that purpose has been for some time in use among farmers of our acquaintance. The following is a brief description of it. A kettle, holding twelve gallons or more, is set in a furnace of brick or stone, and over his a hoghead with one head taken out and the other closed full of holes. This is set so close that the steam of the kettle, when boiling, can only rise through the holes, and thence ascend among the articles to be boiled in the hoghead and pass off at the top. In this way a hoghead of potatoes will be nearly as soon boiled as a small part of them could be if placed in the kettle underneath.

As the kettle is so closed as to prevent any steam on passing off, but through the bottom of the hoghead, a pipe or tube is set in such a manner that with the aid of a funnel water may be poured into the kettle as often as is necessary. After poured in, the tube is stopped with a plug for that purpose.†

*An engraving of it is given in the 30th volume of the Society's Transactions.

† 11 lbs. a stone.

‡ The "Complete Grazier" contains a drawing and description of this simple apparatus, which it calls a "hot-steamer"; and observes that it was introduced into England from America. It states that the top of the hoghead, which in America "is usually left open, might be advantageously be covered with a thick coarse cloth which is much better, after the vessel is filled with the washed roots, it is closely clayed all round, and the head

Grain of all kinds may be steam boiled by this apparatus, to great advantage, for feeding or fattening cattle; but in that case, it is requisite to have the bottom of the hoghead covered with a cloth, to prevent the grain from running down through the holes.

Experiments have been made in Pennsylvania, by which it appears that Indian corn and potatoes will fatten swine one third faster when boiled or steamed than when given to them without any preparation.

An Address delivered to the Maryland Agricultural Society, by their President, Mr. Robert Smith, and published in the American Farmer, No. 11, Vol. 4, contains the following observations on this subject:

"Economy in the feeding of stock is an object of the highest importance, interesting alike to the public and to the individual. The great waste of hay, straw, corn fodder, chaff and other offal, apparent on every estate, under the prevailing practice of our country, has suggested to me the expediency of having at my dairy farm a steaming apparatus. This I have recently established on a plan so simple and so cheap, that any person in any part of our country may have a similar one, greater or smaller, according to the extent of his farm and the proposed number of his stock. It consists of an iron boiler and two wooden boxes. The boiler contains 100 gallons. One of the boxes is eight feet, the other five feet long; both three feet wide and three feet deep. The boiler is globular, and was made by screwing together the brims of two salt pans. There is also attached to it a hoghead for any extra cooking.

"The boiler is fixed in brick work, calculated to afford the greatest degree of heat, with the smallest waste of fuel. Without pretending to give directions as to the particular construction of such a furnace, I would merely remark, what the physiologists have told us, namely, that heat being produced by the combined operation of the fuel and of the air feeding the fire, that portion only of the air, which passes in contact with the burning fuel, contributes to the production of heat, and that, therefore if the fire place should be larger than the heap of burning fuel, a certain portion of air will insinuate itself without going through the fire, and of course, not being decomposed will contribute nothing to the heat.

"To the water in the boiler is given all the heat necessary to generate the required steam. The steam is conveyed into the boxes by copper pipes attached to the upper part of the boiler, and is introduced between the bottom of each box, and a false bottom, consisting of several sheets of copper perforated with holes. Into this chamber, four inches high, formed by the two bottoms, the steam is conveyed, and passing through the holes of the false bottom, diffuses itself throughout the whole contents of the box, and thus effectually cooks the great mass of food therein contained. When sufficiently boiled, the steam, by means of a common stop cock, is turned into the other box. At one end of each box, and near the bottom, is a spigot and faucet, by means of which are drawn off the condensed steam and liquid matter, which had oozed out of, and been extracted from the cooked materials. This decoction is of a deep chocolate color and highly flavored. It may be given to the calves, or it may be returned to and mixed with the steamed food. It, however, may not be amiss to remark, that when a liquid feed is proposed the false bottom is not used.

"In the corner of the steam house next to the pump there is a hoghead of water in which is inserted a leaden tube, the other end of which is immersed in the water of the boiler and nearly to the bottom of it. The admission of the requisite supply of water from this reservoir into the boiler is regulated by a stop cock. And the cold water being specifically heavier than the warm, will necessarily take its place at the bottom, whilst the hot water will remain at the top. This simple plan is preferred to the self-supplying valve, which is apt to get out of order. At the top of the boiler there is a safety valve for the escape of all redundant steam, the electric force of which would otherwise endanger the whole establishment."

(To be continued.)

fastened down to confine the steam; and, if necessary, a short wooden plug may be inserted for the purpose of admitting air, and which may be removed at pleasure."

LATEST FROM EUROPE.

The ship Triton, Capt. Bussey, arrived at this port on the 12th inst. in 30 days from Liverpool, and brought London papers to the 9th and Liverpool papers to the 11th ult.

Turkey and Russia have of late made no menacing movements, nor assumed new attitudes either of a hostile or pacific nature. The Turks, however, according to the last advices, continued to exercise the most atrocious cruelties on the miserable Greeks—stretching their ferocity to the utmost limits of their power. In the mean time the great Potentates of Europe appear to be gazing quietly on those scenes of suffering, and scarcely exhibit a symptom of sympathy for the sufferers; thus giving fresh proof of the correctness of the assertion of the moral poet, who says, "there is no flesh in man's obdurate heart." "Pity 'tis" that they have no pity, and well would it be, if changing places with the sufferers, those heartless monarchs could "be what they behold," till the actual endurance of calamity should teach them to put a stop to its infliction.

Spain continues in a state of confusion, and "civil dudgeon" adds domestic calamity to foreign menaces. The king proreigned the Cortes on the 30th June, on which occasion he made a clever and gracious speech, according with the spirit of the constitution. This, however, did not prevent tumults from taking place in Madrid. Some shouted for an absolute, some for a constitutional king, and others evinced a disposition to submit to no king. In the mean time France threatens the Spanish frontiers with about 60,000 men in arms, ready to take advantage of those domestic disturbances.

The distresses in Ireland continue undiminished, and it is said the funds of charity are exhausted. In London it has been proposed that every family should go without a dinner one day, and contribute the saving to the relief of the Irish sufferers. "War," says one of the Irish papers, "with all its horrors, is mercy, is paradise, to the condition of Clare, Kerry, Cork, Galway, Mayo and Sligo."

The Yellow Fever has made its appearance in New York, and several persons have fallen victims to that dreadful disorder.

MARRIAGES.

In Utica, N. Y. Mr. Franklin Sherrill, of Ithica, to Miss Mary Ann Edwards, daughter of Thomas Edwards, Esq. of this city.

In this city, Mr. John W. Gammage, to Miss Hannah Sawyer.—Mr. Joseph R. Taft, to Mrs. Mary Manning.

DEATHS.

In South Boston, Mr. Joseph Hill, of N. Hampshire, supposed to have fallen overboard in a fit.

In this city, Mrs. Fear Scudder, wife of Mr. Charles Scudder. 33—Mr. James Furneaux, 42—Mrs. Lucy Watts, widow of Mr. Prince W. 61—Widow Jane Hammond, 73—Mr. Caleb Clark, 26—Sydney B. Williams, son of Robert W. Esq. 14—Mrs. Lydia Maria Greele, wife of Mr. Samuel G. 31—Mr. John Sullivan, 42.—Drowned, Master Samuel S. son of Mr. Samuel Norwood, 13.

GREAT ADDITIONS TO THE NEW ENGLAND MUSEUM,

76, COURT STREET.

THE Proprietors of this extensive establishment have the pleasure to announce to their patrons and the public, that, besides their usual continual additions of curiosities from all parts of the World, they have just added another entire Museum, making now one Grand Consolidation, of 4 Museums united in one.

The late additions alone are superior in extent and variety, to any other Museum in this city.

Admittance 25 cents only.

August 10.

From the New Monthly Magazine, for June.

AIR, "FLY NOT YET."

When eastern skies are tinged with red,
And fairest morn with hasty tread
Upsprings to ope Heaven's golden gate,
And chase the ling'ring stars that wait

To spy the blushing dawn;
While rays from Phæbus' glowing car
Gleam brightly on your casement's bar.
And pour a flood of glorious light
To shame the slothful sons of night,

Oh haste—oh haste
To snatch the fresh and fleeting hour
Ere noon has sipp'd each dewy flower
That decks the spangled lawn.

Oh shake off slumber's drowsy spell,
In morning's pleasant haunts to dwell;
And haste to join the feather'd throng,
To greet the dawn with choral song,

Or skylark's earlier lay:
With careless footsteps freely rove
O'er sunny plain, or leafy grove,
While new-mown hay its sweets bestowing,
Perfumes the air that's freshly blowing;

Oh haste—oh haste
To meet the bee on busy wing
O'er opening flowerets hovering,
And watch the squirrel's play.

To taste the gifts of earth and air,
That Phæbus' fiercer beam will scare,
On new-born buds of every hue
To trace the glittering drops of dew,

The timid hare to spy,
Who stealing forth, now hopes unseen,
To banquet on the humid green,
And oft, the while she fearless grazes,
Admires her leveret's frolic mazes,

Oh haste—oh haste—
Joys like these will never stay,
But melt like summer's mist away,
From days too piercing eye.

MISCELLANEOUS.

DOG-STAR AND DOG-DAYS.

The ancient Egyptians, in their observations on the stars, noticed that when a certain star of considerable magnitude first appeared above the horizon in the morning, just before dawn—the overflowing of the Nile immediately followed. Being warned by this precursor, they retired to the highlands to escape the inundation, carrying with them things necessary for their retreat. As this star performed for them the service of the house-dog, by warning them of approaching danger, they called it the dog-star, and supposing that this star was the cause of the extraordinary heat, which usually falls out in that season, they gave the name of dog-days to six or eight weeks of the hottest part of the summer. They ascribed an extraordinary influence to this star, paid it divine honors, and from its color formed prognostics, what the season would be. The Greeks and Romans also held the opinion that the dog-star was the cause of the sultry heat, usually felt about this time. Its influence was esteemed so great by the Romans, that they sacrificed a brown dog to it every year to appease its rage.

All these notions of the ancients, and all similar opinions that prevail at the present time, on this subject, are mere idle fancies. The dog-

star has no more influence in producing heat or sultriness, than any other star that decks the sky, and the days usually denominated dog-days, might with as much propriety be said to begin on the 20th or 15th of July, as on the 25th. The atmosphere suffers no greater change on the 24th and 25th of July, nor on the 5th and 6th of September, than it does on other days preceding and subsequent to those days. If the term dog-days has any appropriate signification it is because the word is intended to denote forty or fifty days of the most hot and sultry part of the year, but as these days vary almost every year in their commencement and termination, any notice in the almanack, or elsewhere, pretending to define the time when dog-days begin and end, is futile and of no more importance than the predictions concerning the weather.

PUTNAM'S ROCK.

The last number of the American Journal of Science, edited by Professor Silliman, of Yale College, contains the following "Extract of a letter from Professor Dana, of Dartmouth College, to the editor, dated Feb. 5th, 1822.—"I have received an account of Putnam's Rock, which is in the river, opposite West Point. It was given to me by my friend Col. Tucker, of Gloucester, Mass. and the history, as connected with the American Revolution, cannot fail to be interesting.

"This famous rock, originally a native of the highlands above West Point, was situated on the extreme height of *Butter Hill*,* when the morning fog was descending from the hill it had a very beautiful appearance not much unlike a horseman's tent or hospital marquee riding on the cloud. It was a common amusement for the officers when off duty to roll large rocks from the sides of those hills. These often set others going with them, to the great terror of those persons who were below. One day when this laborious amusement was over, Col. Rufus Putnam proposed going up to take a peep off this curiously situated rock; it was found situated on a flat rock of great extent, and near the brink of a considerable precipice, and hung very much over it. Col. Putnam believed that it was moveable, and if once moved that it would roll over; and falling from twenty to fifty feet, commence it rout to the river. A few days after we formed a party of officers, with our servants, who took with them axes, drag-ropes, &c. in order to procure levers for the purpose of moving the rock, which we soon found was in our power. The levers being fixed with ropes to the ends of them all, Col. Putnam, who headed the party, ordered us to haul the ropes tight, and at the word *Congress* to give a long pull, and a strong pull, and a pull altogether. This we did, the levers fell, the rock rolled over, tumbled from the precipice, and took up its line of march for the river! The party then had the satisfaction of seeing the most majestic oaks and loftiest pines, bowing down in homage and obedience to this mighty traveller, which never stopped till it had reached the bed of the river, where it now lies on the edge of the flats and far enough from the shore for a coasting vessel to sail round it. The party followed after in its path, and were astonished to see that rocks of many

tons weight, and trees of the largest size, were ground to powder. On arriving at the river, the party embarked, and landed, to the number of sixty or seventy on the rock, when Col. Putnam broke a bottle of whiskey and named it "*Putnam's Rock*." I may have forgotten some of the minutiae of the transaction in the lapse of forty-three years; but it is a fact that the rock now in the river was removed from the extreme top of the *Butter Hill* by the officers of Col. Rufus Putnam's regiment, in the revolutionary war, in the service of the U. States, some time in the month of June, in the year 1778."

From an Ohio Paper of July 2.

Petrification.—An elderly gentleman, who recently died in Fayette county, Kentucky, previous to his death requested that his daughter's remains should be disinterred and deposited by the side of his own. His daughter had been buried about eleven years, in the county of Bourbon, Ky. After his decease, the old gentleman's request was complied with. To the great surprise and astonishment of those engaged in raising the daughter's remains her body was found to be entire, and of its full size. On a minute examination it was discovered to be perfectly petrified; its specific gravity was about the same as that of common lime stone.—The coffin was entirely decayed. Her countenance had undergone so small an alteration that her husband, it is said, on beholding her, fainted

In Petersburg, Va. a man is exhibiting serpents, and among them a rattlesnake four feet in length, five or six inches in circumference fangs and rattles entire, which is completely domesticated, and as obedient and affectionate to his master as a dog, and will coil himself up on his shoulder, caress him, and kiss his cheek. There is no disputing about tastes.

The sails and cordage of a first rate man of war require 180,000 lbs. of rough hemp for their construction; and it is said to average five acres of land to produce a ton of hemp: thus one of those monstrous towers of human ingenuity consumes a year's produce of 424 acres of land to furnish its necessary tackle.

The following curious circumstance, (says a London paper) which occurred during a fire at Bankside, may be relied on as a fact:—In one of the houses that appeared as one sheet of fire, the firemen perceived a cat sitting on some bags which were in the midst of the flames; the cat cried "mew! mew!" most bitterly finding her escape impossible. One of the firemen who saw and heard her, cried out to Solomon, a Jew, who assisted them to work at the engine, "Solomon, y hear the cat calls out—Jew! Jew!" Solomon emphatically cried, "you shall not be disappointed the Jew, if, at the risk of my life, I can save you." I threw up a rope, to which there was a hook attached which fortunately stuck in the sack, and with a quick jerk, he pulled the sack from the midst of the flames and also the cat, whose hair was all singed from the fire. During an hour afterwards, whilst he worked the engine, the cat never quitted him, but held fast his shoulder, or sat near him on the engine; and afterwards brought his cat home to his own house.

A German Priest walking in procession at the head of his parishioners, over cultivated fields, in order to procure a blessing on their future crops, when he came to those of unpromising appearance, would pass saying, "here prayers and singing will avail nothing this must have manure."

* This hill is 1520 feet above tide water, and 1332 above its base, according to Capt. Patridge.

NEW ENGLAND FARMER.

Published every Saturday, by THOMAS W. SHEPARD, Rogers' Building, Congress Street, Boston; at \$2.50 per ann. in advance, or \$3.00 at the close of the year.

Vol. I.

BOSTON, SATURDAY, AUGUST 24, 1822.

No. 4.

CATTLE SHOW.

Exhibition of Manufactures, Ploughing Match, and Public Sale of Animals and Manufactures, at Brighton, Mass. on Wednesday and Thursday, the 9th and 10th of October, 1822, to commence at 9 o'clock, A. M. on each day.

THE Trustees of the Massachusetts Society, for the Promotion of Agriculture, encouraged by the patronage of the Legislature of this State, intend to offer in Premiums, not only the sum granted by the Government for that purpose, but also the whole amount of the income of their own funds. They, therefore, announce to the public, their wish to have a CATTLE SHOW, and EXHIBITION OF MANUFACTURES, &c. &c. at Brighton, on Wednesday and Thursday, the 9th & 10th of October, 1822; and they offer the following PREMIUMS:

FOR STOCK.

For the best Bull, raised in Massachusetts, above one year old,	\$30
For the next best do. do.	20
For the best Bull Calf, from 5 to 12 months old	15
For the next best do. do.	8
For the best Cow, not less than three years old	30
For the next best do. do.	20
For the next best do. do.	15
For the best Heifer, from one to three years old, with or without calf	15
For the next best do. do.	10
For the best Ox, fitted for slaughter, regard to be had to the mode and expense of fattening	40
For the next best do. do.	30
For the next best do. do.	20
For the best pair of Working Cattle	30
For the next best do. do.	25
For the next best do. do.	20
For the next best do. do.	15
For the next best do. do.	10
For the best pair of Spayed Heifers, not less than one year old	25
For the best Spayed Sows, not less than four in number, and not less than five months old	20

The claimant to be entitled to either of these two last premiums, must state the mode of operation and treatment, in a manner satisfactory to the Trustees.

For the best Merino Wethers, not less than six in number, having respect to form and fleece 20
 For the next best do. do. do. 10
 For the best native Wethers, not less than six in number do. 10
 For the next best do. do. do. 5
 For the best Merino Ram, do. 15
 For the next best do. 10
 For the best Merino Ewes, not less than five in number, do. 20
 For the next best do. do. do. 10
 For the best Boar, not exceeding two years old do. 10
 For the next best do. do. do. 5
 For the best Sow 10
 For the next best do. 5
 For the best Pigs, not less than two in number, nor less than four months old, nor more than eight 10
 For the next best do. do. 5

None of the above animals will be entitled to premium, unless they are wholly bred in the State of Massachusetts.

For the best Ram which shall be imported into this State, after this advertisement, and before the 15th day of October next, of the improved Leicester breed of long woolled sheep, or of the best Dishley breed, or of the fine, and long

woolled sheep of the Netherlands, the length and fineness of whose wool shall be found superior to those of our present breeds. \$50. or a gold medal of that value, at the option of the importer.

For the next best do. do. 50
 For the best Ewe, of any of the said breeds imported under the same terms, and for the like superior qualities 40
 For the next best do. do. 30

No animal, for which to any owner one premium shall have been awarded, shall be considered a subject for any future premium of the Society, except it be for an entirely distinct premium or for qualities different from those for which the former premium was awarded.

Any of the above Stock, when raised and still owned at the time of the exhibition, by the person who raised them, will entitle the claimant to an allowance of ten per cent. in addition. But Sheep, to be entitled to any of the above premium, must be raised by the person entering them.

FOR AGRICULTURAL EXPERIMENTS.

To the person who shall raise the greatest quantity of Indian Corn on an acre, not less than seventy bushels	\$30
To the person who shall make the most satisfactory experiment, to ascertain the best mode of raising Indian Corn, in hills, in rows, or in ridges; not less than half an acre being employed in each mode, in the same field, the quantity and quality both of land and manure to be equal and uniform in each mode; all to receive a cultivation requisite to produce a good crop	30
To the person who shall raise the greatest quantity of Carrots on an acre, not less than six hundred bushels	20
To the person who shall raise the greatest quantity of Potatoes on an acre, not less than five hundred bushels	20
To the person who shall raise the greatest quantity of Parsnips on an acre, not less than four hundred bushels	20
To the person who shall raise the greatest quantity of common Beets on an acre, not less than six hundred bushels	20
To the person who shall raise the greatest quantity of Mangel Wurtzel on an acre, not less than six hundred bushels	20
To the person who shall raise the greatest quantity of Ruta Baga on an acre, not less than six hundred bushels	20
To the person who shall raise the greatest quantity of common Turnips on an acre, not less than six hundred bushels	20
To the person who shall raise the greatest quantity of common Turnips, after any other crop in the same season, being not less than four hundred and fifty bushels	20
To the person who shall raise the greatest quantity of Onions on an acre, not less than six hundred bushels	20
To the person who shall raise the greatest quantity of Cabbages on an acre, not less than 25 tons weight	20
To the person who shall introduce any Grass, not before cultivated in this State, and prove, by actual experiment, and produce satisfactory evidence of its superiority in any one quality, to any now cultivated	30
To the person who shall give satisfactory evidence on 'Soiling Cattle,' not less than six in number, and through the whole season, together with a particular account of the food given, and how cultivated	30
To the person who shall make the experiment of turning in green crops as a manure, on a tract	

not less than one acre, and prove its utility and cheapness, giving a particular account of the process and its result 30

To the person who shall, by actual experiment, prove the best season and modes of laying down lands to grass, whether spring, summer or fall seeding be preferable, and with or without grain on different soils 30

To the person who shall raise the greatest quantity of dry Peas on an acre, not less than thirty bushels 20

To the person who shall raise the greatest quantity of dry Beans on an acre 20

To the person who shall give proof of having produced the largest quantity of dressed Flax, raised on an half acre 20

To the person who shall take up in the season, on his own farm, the greatest quantity of good Honey, and shall at the same time exhibit superior skill in the management of Bees 10

For the best Cheese, not less than one year old, and not less in quantity than 100 pounds 10

For the next best do. do. 5

For the best Cheese less than one year old 10

For the next best do. do. 5

To the person who shall raise the greatest quantity of Vegetables, grain, peas and beans excepted, for winter consumption, of the stock on his own farm, and not for sale, in proportion to the size of the farm and stock kept, having regard to the respective value of said vegetables as food, stating the expense of raising the same, and the best mode of preserving the same thro' the winter 30

To the person who shall raise the greatest quantity of winter Wheat on an acre 30

To the person who shall raise the greatest quantity of spring Wheat on an acre 30

To the person who shall prove to the satisfaction of the Trustees, that his mode of rearing, feeding and fattening neat cattle is best 20

For the best Butter, not less than fifty pounds 10

For the second best do. do. 5

For the best Sole Leather, not less than five sides 10

For the second best do. do. 5

For the best dressed Calve Skins, not less than twelve in number 10

For the second best do. do. 5

For the best five barrels of superfine Flour, manufactured in the State of Massachusetts, from wheat raised in this state 25

For the greatest quantity of Butter and Cheese, made between the 15th of May, and the 1st of October, from not less than four Cows, the quality of the Butter and Cheese, and the number of Cows to be taken into consideration, and specimens to be exhibited at the Show, of not less than twenty pounds of each, and the mode of feeding, if any thing besides pasture was used 20

To the person who shall prove by satisfactory experiments, to the satisfaction of the Trustees, the utility and comparative value of the cobs of Indian Corn, when used with or without the grain itself, ground or broken 20

To entitle himself to either of the Premiums, under this head of Agricultural Experiments, the person claiming, must cultivate a tract of at least one acre in one piece, with the plant or production for which he claims a premium, (except flax) and must state, in writing, under oath of the owner, and of one other person, (accompanied by a certificate of the measurement of the land, by some sworn surveyor,) the following particulars:

1. The state and quality of the land, in the spring of 1822.

2. The product and general state of cultivation and quantity of manure, employed on it the year preceding.

3. The quantity of manure used the present year.

4. The quantity of seed used, and of Potatoes the sort.

5. The times and manner of sowing, weeding, and harvesting the crop, and the amount of the product, ascertained by actual measurement, after the whole produce, for which a premium is claimed, and the entire expense of cultivation.

And in relation to all vegetables, except Potatoes, Onions and common Turnips, the fair average weight of at least twenty bushels must be attested; and if there be hay scales in the town, in which raised, not less than three averaged cart loads must be weighed.

The claim under this head, together with the evidences of the actual product, must be delivered, free of postage, to Benjamin Guild, Esq. Assistant Recording Secretary of this Society, on or before the first day of Dec. next. The Trustees not intending to decide upon claims under the head of Agricultural Experiments, until their meeting in December.

FOR INVENTIONS.

To the person who shall use the Drill Plough, or Machine, and apply it most successfully to the cultivation of any small Grains or Seeds, on a scale not less than one acre

To the person who shall invent the best Machine, for pulverizing and grinding Plaster to the fineness of twenty-five bushels per ton, and which shall require no more power than a pair of oxen or a horse, to turn out two tons per day, and so portable that it can be removed from one farm to another without inconvenience

To the person who shall produce, at the Show, any other Agricultural Implement, of his own invention, which shall, in the opinion of the Trustees, deserve a reward, a premium not exceeding 20 dollars, according to the value of the article exhibited

In all cases proofs must be given of the work done by the Machine, before it is exhibited; and of its having been used and approved by some practical farmer.

FOR FOREST TREES.

For the best plantation of White Oak Trees, not less than one acre, nor fewer than one thousand trees per acre, to be raised from the acorn, and which trees shall be in the best thriving state, on the first of September, 1823

For the best Plantations of White Ash, and of Larch Trees, each of not less than one acre, nor fewer than one thousand trees per acre, to be raised from the seeds, and which trees shall be in the best thriving state, on the first of September, 1823

For the best Live Hedge made of either the White or Cockspur Thorn, planted in 1820, not less than one hundred rods, and which shall be in the best state in 1823

FOR DOMESTIC MANUFACTURES.

To the person or corporation, who shall produce the best specimen of fine Broadcloth, not less than 15-8 yards wide, exclusive of the list, 40 yards in quantity, and dyed in the wool

For the best superfine Cassimere, not less than 3-4 yard wide, nor less than forty yards in quantity

For the best superfine Sattinet, 3-4 yard wide, not less than fifty yards

To the person or corporation, who shall produce the best specimen of Cotton Cloth, manufactured in this State, not less than fifty pieces

To the person who shall produce the best specimen of any other fabrics of Cotton, manufactured in this State, in public factories, not less than fifty pieces

In private families, not less than five pieces

FOR HOUSEHOLD MANUFACTURES.

For the best Woollen Cloth, 3-4 wide, not less than twenty yards in quantity

For the second best do. do.

For the best double milled Kersey, 3-4 yard wide, not less than twenty yards in quantity

For the second best do. do.

For the best Coating, 3-4 yard wide, and not less than twenty yards in quantity

For the second best do. do.

For the best Flannel, 7-8 yard wide, not less than forty-five yards in quantity

For the second best do. do.

For the best yard wide Carpeting, not less than thirty yards in quantity

For the second best do. do.

For the best 5-8 yard wide Stair Carpeting, not less than thirty yards in quantity

For the second best do. do.

For the best pair of Blankets, not less than 8-4 wide and 10-4 long

For the second best do. do.

For the best Woollen Knit Hose, not less than 12 pair in number

For the second best do. do.

For the best Worsted Hose, not less than twelve pair in number

For the second best do. do.

For the best Men's Half Hose, (woollen) not less than twelve pair in number

For the second best do. do.

For the best Men's Woollen Gloves, not less than twelve pair in number

For the second best do. do.

For the best Linen Diaper, 5-8 yard wide, and not less than thirty yards in quantity

For the second best do. do.

For the best 4-4 yard Diaper, (for table linen) not less than thirty yards in quantity

For the second best do. do.

For the best specimen of Sewing Silk, raised and spun in this State, of good fast colors, not less than one pound

For the second best do. do.

For the best Linen Cloth, (for shirting or sheeting) one yard wide, and twenty-five yards long

For the second best do. do.

All the above Manufactures, except when of Cotton, must be of the growth and manufacture of the State of Massachusetts. And all Manufactures, when presented, must have a private mark, and any public or known mark must be completely concealed, so as not to be seen, or known by the Committee, nor must the Proprietors be present when they are examined; in default of either of these requisitions, the articles will not be deemed entitled to consideration or premium.

Animals, Manufactures, or Articles, may be offered for premium at Brighton, notwithstanding they may have received a premium from a County Agricultural Society.

It is understood, that whenever, merely from a want of competition, any of the claimants may be considered entitled to the premium, under a literal construction, yet if, in the opinion of the Judges, the object so offered is not deserving of any reward, the Judges shall have a right to reject such claims. Persons to whom premiums shall be awarded, may, at their option, have an article of Plate, with suitable inscriptions, in lieu of money. Premiums will be paid within ten days after they shall be awarded.

That in any case in which a pecuniary premium is offered, the Trustees may, having regard to the circumstances of the competitor, award either one of the Society's gold or silver medals in lieu of the pecuniary premium annexed to the several articles.

That if any competitor for any of the Society's premiums shall be discovered to have used any

disingenuous measures, by which the objects of the Society have been defeated, such person shall not only forfeit the premium which may have been awarded to him, but rendered incapable of being ever after a competitor for any of the Society's premiums.

All premiums not demanded within six months after they shall have been awarded, shall be deemed as having been generously given to aid the funds of the Society.

The Trustees of the Massachusetts Society for Promoting Agriculture, hereby give notice, that they intend, on the second day of the Cattle Show, viz: on the 10th day of October next, to give premiums to the Owners and Ploughmen of the three Ploughs, to be drawn by oxen, which shall be adjudged, by a competent Committee, to have performed the best work, with the least expense of labor, not exceeding half an acre to each plough, and of such depth as the Committee shall direct.

First Plough	\$20	Second Plough	\$12	Third Plough	\$8
Ploughman	10	Ploughman	6	Ploughman	4
Driver	5	Driver	3	Driver	2

In each case, if there be no Driver, both sums to be awarded to the Ploughman.

The persons intending to contend for these Prizes, must give notice, in writing, to S. W. POMEROY, or GORHAM PARSONS, Esq's. of Brighton, on or before the 2d day of October, so that proper arrangements may be made for the purpose. No person, will, on any consideration, be admitted without such notice. The competitors will also be considered as agreeing to follow such rules and regulations as may be adopted by the Committee, on the subject. The ploughs to be ready to start at 9 o'clock, A. M.

The result of the last Ploughing Matches at Brighton, and the satisfaction expressed by so many of their agricultural brethren, will induce the Society to continue these premiums annually, in connexion with the Cattle Show, as an efficacious means for exciting emulation and improvement in the use and construction of the most important instrument of agriculture.

Persons intending to offer any species of Stock for premiums, are requested to give notice thereof, either by letter (post paid) stating the article, or to make personal application to Mr. JONATHAN WINSHIP, at Brighton, on or before the 8th day of October, and requesting him to enter such notice or application; so that tickets may be ready at 9 o'clock, on the 9th. No person will be considered as a competitor, who shall not have given such notice, or made such application for entry, on or before the time above specified.

All articles of manufactures must be entered and deposited in the Society's Rooms, on Monday, the 7th of October, and will be examined by the Committee on Tuesday, the 8th, the day before the Cattle Show; and no person but the Trustees shall be admitted to examine them before the Show. The articles so exhibited, must be left till after the Show, for the satisfaction of the public.

The applicants will be held to a rigid compliance with this rule relative to entries, as well as to the other rules prescribed.

The examination of every species of stock, (except working oxen) will take place on the 9th; and the trial of Working Oxen, examination of Inventions, and Ploughing Match, on the 10th of October.

The Trustees also propose to appropriate, on the second day of the Cattle Show, their Pens for the public sale of any Animals, that have been offered for premium, and also of any others, that are considered by them, as possessing fine qualities; and their Halls for the public sale of Manufactures. Both sales to take place at half past eleven o'clock, precisely. And for all Animals or Manufactures, that are intended to be sold, notice must be given to the Secretary, before 10 o'clock of the 10th. Auctioneers will be provided by the Trustees.

By order of the Trustees,

J. LOWELL,
J. PRINCE,
G. PARSONS,
E. H. DERBY, } Committee.

January, 1822.

From the Boston Daily Advertiser.

CONSTRUCTION OF STABLES.

Most of the horses brought into this town from the country, become soon diseased, generally in the course of the first week, and frequently in 24 or 48 hours after they are placed in our stables. It has been frequently asked what can be the cause of this sudden alteration in the health of the animal, and it has almost as frequently been answered, a change of air and of food. There is no doubt a change of food has some influence, but the effect is principally attributable to a change of air. It is not however the kind of change, that is generally supposed. It is not the bringing horses from a fresh atmosphere to a salt one, that produces the disease I allude to. It is the bringing them from a pure atmosphere, and confining them in crowded stables, where the air being vitiated by respiration, and the effluvia from animal bodies, a malignant quality, which being inhaled by horses unaccustomed to it, soon deranges the system and generates disease; and so long as our stables are constructed, as they now are, so long will our country horses be sick, when brought into them. We have all of us heard of jail fever, hospital fever, plague and typhus; and much has been said about the domestic origin of yellow fever, but what jail, hospital or prison ship; or what situation in our streets, or about our wharves, can be found, where the air is so vitiated as in a common stable? Imagine for instance 30 or 40 horses confined in a space 50 by 30 feet, and 9 feet high, (the scaffold is generally about 9 feet from the ground) surrounded by a brick wall, without windows, and no ventilators through the roof; and no outlet for the hot air, except at the doors, and those closed at night; and then consider the fact as stated by Dr. Hales, that a man cannot live in 74 cubical inches of air, one minute, without danger of suffocation. It is obvious, that a horse so situated, must breathe the same air over and over again and not only the air which has repeatedly passed through his lungs, but that which has been breathed many times by other horses, and is filled with exhalations, arising from animal secretions and excretions; and perhaps too, the planks and timbers of the very stall he stands in, may have been saturated, for years, with excrementitious matter, which can emit only noxious effluvia, or what is called animal miasms.

It has been stated by a writer of some eminence, that three thousand men confined in the

compass of one acre of ground, would make an atmosphere of their own steams, seventy feet high, which would soon become pestilential, if it were not dispersed by the winds. After considering these facts, who can doubt what generates disease in horses brought into our stables from the country? The only doubt that naturally suggests itself is, how our horses get along so well as they do. After getting over their first sickness, or seasoning, as it is called, (which requires more or less time, according to the constitution of the horse, and the stable in which he is placed) they go on tolerably well. Their constitutions become assimilated to their situation, as to the air which they breathe, and its effects are not so injurious; in the same manner as a man, may become so accustomed from habit, to the use of tobacco, opium, and arsenic, that they will not make him sick, yet none will say, that these are not injurious to the human constitution; and I believe few will say, when the subject is properly understood, that the air in our stables is not equally so to the animal.

In making these remarks, I have but one motive, which is to draw the attention of the public to this subject, in hopes that an alteration in the construction of our stables may be the consequence. We have many excellent buildings in this town, occupied as stables, and with a few alterations, they might be made very healthy and comfortable dwellings, for horses.

In constructing a stable, the first object ought to be a proper system of ventilation. This may be effected in the following way. Let a hole 3 by 4 inches be knocked through the brick wall, immediately above the head of each horse, and another of the same dimensions opposite to it, and parallel with the floor of the stall. This will occasion a perfect and constant ventilation. As it is the property of hot air to ascend, every time the horse makes an expiration, the air expelled from his lungs, being more rare than the surrounding atmosphere, will go out at the upper hole, and a corresponding quantity of pure air will come in at the lower hole.

No danger is to be apprehended from cold air coming in at the upper hole, upon the head of the horse, as the current will constantly be turned upwards. The rarified and unwholesome air will escape at the upper hole, and the wholesome air will come in at the lower.

As some stables may be so situated, as to render this method of ventilation impracticable, I would recommend, where this is the case, that one, two, three or four openings be made through the roof. The number ought to be in proportion to the length and size of the stable. This may be done in the following way. Let a hole be cut through the scaffold about 3 feet square, and another directly over it, through the roof, about 2 feet square, and let a box be inserted, open at each end, of a shape and size, to correspond to these two openings, and sufficiently long to extend from the under side of the scaffold, through the roof. Then let holes be cut through the doors, or through some convenient parts of the stable, on a parallel with the floor, of equal number and dimensions, as those through the roof. By this method a regular and systematic ventilation will be produced. If any one doubts the justness of these remarks, and believes that our present method of stabling a good one, and that horses ought to

be kept in a hot air, and covered up with woolen blankets, let him try the experiment upon himself; let him sleep in a heated room, with ten or fifteen others, covered up with clothes, sweat it out for the night, and try the condition he will be in for any kind of employment whatever.

I cannot refrain here from making one or two remarks upon the very common, but very absurd practice of blanketing horses in the stable, though this is a subject which more properly belongs to the management of horses than the construction of stables.

It must be obvious to every one, who reflects at all upon this subject, that if a horse requires one blanket in a warm stable, he ought to have two when he goes out in a cold storm. Instead of this, when the horse is taken from the stall, his blanket is thrown off, and he is exposed perhaps for the day to the inclemency of the weather, and frequently without much exercise to counteract the effects of cold. Even the constitution of a horse cannot withstand this treatment. He soon becomes infirm, decrepit, and broken down. His usefulness is diminished and his life shortened by this kind of management.

From the Rhode Island American.

FARMERS—ATTEND.

James Sisson, Esq. who lives at Warren Neck, about three miles from the village of Warren, is well known to the publick as an enterprising Agriculturalist. He is always seeking improvements in what is most useful to his fellow-citizens, viz. Orchards, the introduction of new kinds of Grain, the best mode of cultivating his farm, &c. He imported from Bremen, in November, 1820, two pairs of the largest kind of Geese, supposed to be the largest in the world, weighing when fatted, 20 pounds, and, it is confidently asserted, some weigh 30 pounds. At first he was rather discouraged, as they would not eat Indian corn, and the spring following they sat early and both Geese reared but one to maturity. That one, however, this spring, brought off two litters, and the two old pairs each brought up a litter; he now has 17 young and 5 old ones, all perfectly white and healthy, and of full size. They feed and set as well as any of our common Geese; the young come off healthy and strong, and yield about double the quantity of feathers. I was at his farm, a few days since, and was highly gratified in viewing on the lawn directly in front of the house, two beautiful flocks of snowy whiteness (he has the common geese, feeding near them, and they resemble ducks in point of size) and I have no hesitation in recommending to the farmers of New-England that they introduce this valuable breed of poultry into their barn yards. Mr. Sisson will dispose of a few pairs, if applied for soon, and the opportunity ought not to be neglected.

A Friend to Agriculture.

New Covering for Floors.—A new material has been introduced and is becoming fashionable in Philadelphia as a covering for floors. It is made of paper, is said to be very handsome, as it may be fashioned in a great variety of patterns, is quite durable, and is only one quarter as expensive as Carpets or Oil Cloth.

FACTS AND OBSERVATIONS RELATING TO
AGRICULTURE & DOMESTIC ECONOMY.

WORKING BULLS.

"The bull is naturally vicious, and often becomes so mischievous as to endanger many valuable lives; an evil which we conceive might be remedied by training him to labor. For, being the only beast of his size which is indulged in idleness, and as he possesses equal strength with the ox, we doubt not, but if he were properly worked, and allowed to indulge his desires during the breeding season, he would, by being inured to labor and attended by mankind become gradually tame, and harmless, as the horse, or any other naturally vicious animal. Several experiments, indeed, have been made for this purpose; and from their successful result, we think the practice of working bulls may be advantageously adopted; especially as these animals are not only broken in with little difficulty, and work well, but also because they recover from fatigue much sooner than an ox."—*Complete Grazier*.

REMEDY AGAINST ANTS AND SPIDERS.

Mr. Clutterbuck, Jr. of Watford, washed the walls of his hot-house with a painter's brush, dipped in a solution made of four ounces of corrosive sublimate, in two gallons of water: and since that application, neither the red spider, against which this remedy was employed, nor ants have made their appearance.

Domestic Encyclopedia.

CRICKETS.

An easy method of destroying crickets is to place phials half full of beer, or any other liquid near their holes, whence they will crawl into them and cannot escape. Cats are very fond of crickets; but the great quantities they consume often occasion their death. Hence it is more advisable to destroy these insects, either by pouring hot water into the holes through which they retreat, or exposing boiled peas or carrots, mashed up with quick-silver, in places which they frequent. Another mode of exterminating them, consists in placing pea straw near their habitations, and then immersing them in water, together with this straw, to which they are peculiarly attached.—*ibid*.

REMEDY AGAINST VERMIN WHICH INFEST SWINE.

Mr. Joseph W. Ballard, of Mount Pleasant, Isle of Wight County, Virginia, directs, in cases where hogs are infested with vermin, to take "a little tar, and grease of any kind sufficient to make the tar quite thin, then pour it over the hogs, when fed, sufficiently so as to have them quite smeared with the tar; this may be repeated often in the summer and fall, as I conceive it to be an excellent thing for the health of the hogs—or in good weather you may give to each hog a small table spoonful of sulphur in their food, or in damp weather have them well sprinkled with strong wood ashes; either of these remedies will prevent or destroy the vermin."—*American Farmer*.

SPENT TAN OR TANNER'S WASTE.

This substance is, we believe, valuable for agricultural purposes, and have therefore been sorry to see a great deal of it accumulating in useless piles about tanner's yards, and scattered about highways and commons. It is probable,

however, that if it is employed as a manure in a crude state, it may not prove immediately useful. It would be likely to retain something of the *gallic acid*, which is we believe unfriendly to vegetation. This acid, however, may easily be neutralized by mixing with the bark a quantity of quick lime.

The *Complete Grazier* informs us that "Oak bark, or, (more correctly speaking,) tanner's waste, may be accumulated into small heaps, and mixed with lime and a sufficient degree of water to keep it moist, and promote its decomposition and putrefaction. It is an excellent manure for cold stiff soils, whether arable or grass lands; but for the latter it should be made to approach the nature of vegetable mould as much as possible. The best time of spreading it on grass lands is shortly after Michaelmas, (beginning of October) that the winter rains may wash it into the ground; as, if it be applied in the spring it will burn the grass, and exhaust rather than improve the soil for that season."

It has been said that if boxes are made round peach trees about one foot in height, to hold about a peck, and these filled with the bark taken from tan vats, pressed a little together, the trees will remain free from worms about their roots, which often prove fatal to them. Spent tan, likewise, we have been told, will preserve fruit trees from the curculio, (a small worm which is found in perhaps one half the apples and pears raised in New England.) We apprehend, however, that if this substance is intended as a preservative against insects, it should be applied in a fresh state, and without being mixed with lime, as it is probably the acid which proves destructive to insects, and the acid would be destroyed by quick lime.—Another use of spent tan spread about the roots of fruit trees is to prevent a too early vegetation in the spring, and thus the buds and blossoms escape early frosts.

WEIGHT OF SWINE.

The *Complete Grazier* gives the following rules to guard the unsuspecting purchaser against imposition in buying swine:—"When swine are fat, it appears from actual experiments that every twenty pounds of live weight will, when killed, produce from twelve to fourteen pounds clear weight. Where the hogs do not exceed twelve stone of fourteen pounds to the stone, the weight will be twelve pounds; if they be of a larger size, it will be upon an average about fourteen pounds; so that if a farmer or breeder weigh his beasts while alive, he will be enabled to ascertain the net profitable weight when dead; and likewise by weighing the hogs every week to fix the best time for disposing of them to advantage; because, as soon as an animal ceases to acquire that daily increase, which makes it beneficial to keep him, the best step that can be followed is to sell or slaughter him without delay."

MANGEL WURTZEL.

A writer in the *Farmer's Journal*, an English periodical publication of much merit, in treating of the culture of Mangel Wurtzel, observes that "Having noticed the issue of an innumerable quantity of small lateral fibres from the sides of this plant during its vegetation; considering them conductors of nutriment, and that putres-

cent vegetable or other matter was the best pabulum, a compost of dung and soil (prepared in autumn) was ploughed in with the wheat stubble; the succeeding ploughings, harrowings, &c. well mixed it with the soil. This was the largest crop I ever cultivated or have seen; which I attribute, in a great measure, to the intimately mixing the manure with the soil." "This remark," says the editor of that paper, "is doubly important, as it shews that autumn ploughing, and broadcast dunging (performed in autumn) are best for mangel wurtzel."

SCRAPINGS OF ROADS, AND MUD FROM SWAMPS, &c.

Some little knowledge of chemistry seems indispensable for the proper management of manures. A writer in the *Farmers' Journal* states in substance that turnips manured with scrapings from the city road, consisting chiefly of ballast ground to powder, enriched with the droppings of cattle, grew very vigorously until the bulbs should have swelled, when they all turned yellow and died, notwithstanding they were, from time to time, well watered. The same writer says, "The experiments of Mr. Malcolm prove that scrapings from gravel roads may be generally suspected of containing qualities injurious* to vegetation, although the droppings of cattle, &c. mixed therewith, give a temporary vigor to the plant. On the other hand, scrapings from chalky roads, or any calcareous stone may be very useful on suitable soils."

We have likewise known swamp-mud, apparently rich, but mixed with sulphate of iron (copperas) (as was manifested by that kind of scum on the water drained from the swamp which denotes the presence of that metal) disappoint the expectations of farmers, who used it for manure. This may be easily accounted for. "Vitriolic impregnations," according to Sir Humphrey Davy, "in soils where there is no calcareous matter, are injurious, probably in consequence of their supplying an excess of ferruginous matter to the sap. Oxide of iron in small quantities forms a useful part of soils, and probably is hurtful only in acid combinations." The remedy, in such cases, is simple, and is thus pointed out by Sir Humphrey Davy. "If on washing sterile soil it is found to contain the salts of iron, or any acid matter, it may be ameliorated by the application of quick lime. A soil of good apparent texture from Lincolnshire, was put into my hands by Sir Joseph Banks, as remarkable for sterility; on examining it, I found that it contained sulphate of iron; and I offered the obvious remedy of top dressing with lime, which converts the sulphate into a manure."† The sulphuric acid of the sulphate of iron, combines with the lime and forms sulphate of lime, which is Gypsum, or Plaster of Paris.

GOOD HINTS.

The following, extracted from an Address by Mr. James Garnett, President of the Fredericksburgh Agricultural Society, delivered before that Society at an anniversary meeting, may be found well worth the attention of those whom it may concern.

"I here beg leave to offer, (although I know that I shall receive no thanks for it) a sugges-

* Probably sulphate of iron (copperas) or some other combination of acids with metals.

† Agricultural Chemistry, p. 141, Philadelphia ed.

tion to all makers of patented agricultural implements. This is to calculate well before they fix their prices, whether they could not make greater profits by selling at lower rates. I know a maker of cast-iron ploughs, for instance, who, although he has considerably reduced his prices, still receives at least twenty cents per pound for them, as I have ascertained by actual weighing, when common castings, the monopoly of which is not secured by patent, sell from six to eight cents! This difference, I think, may well be called an exorbitant exaction; and to my certain knowledge it has prevented many farmers from using, notwithstanding they highly approve them. Now, although I would be one of the last men in the world to withhold liberal encouragement from new inventions, yet I must say, that some of the authors of them appear to require other restraints than those which their own consciences and our patent law afford.—That any very useful discovery should enrich the man who makes it, I think all quite fair; but his riches should result rather from the exclusive right of selling his invention, and the products thereof, than from his extravagant profits on the articles which he vends beyond what they would command if he had no monopoly.*

Extracts from an Address delivered before the Philadelphia Society for promoting Agriculture, at its annual meeting on the 15th Jan. 1822.

"It was stated two years ago by one of the Vice-Presidents of this Society, that the average crop of wheat in Lancaster county, which is considered the richest in the state, did not probably exceed fifteen bushels per acre. Now the average of all France is more than eighteen bushels—the average of all England twenty-four—and in some counties, as in Middlesex and the Lothians, forty. With regard to rents, it is not easy to speak with accuracy. If we except the alluvial meadows near this city, which rent for nine or ten dollars per acre, I should not estimate the average rent of cleared land with improvements within the district just mentioned, at more than two or three dollars. In Italy, in England, and in Scotland, lands not particularly favored by vicinity to markets, rent for from sixteen to twenty dollars, and in the neighborhood of large cities, from thirty to forty dollars.

The causes of this inferiority may be discovered in two characteristics of our farming—a disproportionate capital, and an inefficient cultivation. The first is a striking deficiency. Agriculture, though a very common, is not, I think, a favorite pursuit in Pennsylvania. It attracts few from the other classes, and its ranks are rather thinned by desertion than recruited by volunteers. The enterprising shun it for its inactivity; the gay from its loneliness; the prudent from its unproductiveness; so that although a great proportion of the wealth of the state is fixed in land, an exceedingly small capital is devoted to farming. We too often exhaust our means in clearing or purchasing a farm, leaving scarcely any resources for stocking and cultivating it. Now an English farmer, with a certain capital, rents a farm, as a manufacturer rents a house, and devotes his capital to extract from it the greatest possible produce. Accordingly his proceedings seem almost incredible to the possessors of large American farms. It has

become a settled maxim of English husbandry, that before occupying good arable land, a capital of from thirty to forty dollars per acre is necessary. On an estate of three hundred acres, therefore, a farmer begins by expending in preparations nine thousand dollars; and his annual disbursements in labor, manure and other articles, are about five thousand dollars a year. His operations are all on a proportionate scale. To contract to pay a rent of twenty or thirty thousand dollars; to expend in a single year on lime alone, eleven thousand dollars; to pay two thousand dollars a year for rape cake to manure turnips; to make a compost heap costing four thousand dollars; such are the combinations of wealth and skill to produce good husbandry. These we cannot, and we need not imitate. But they may teach us that we should measure our enterprises by our means; and that an ill managed farm can no more be profitable than an empty factory. Men praise the bounty of nature. It is much safer to rely on her justice, which rarely fails to reward our care and avenge our neglect. Our farms, then, though small, are generally too large for our capitals; that is we work badly too much ground, instead of cultivating well a little. It is wonderful, indeed, how profusely a small spot of ground will reward good husbandry. There are in Italy hundreds and thousands of people, living on farms of from four to ten acres, and paying to the owner one third or one half the produce. The whole straw for the Leghorn bonnets, by the exportation of which in a single year five hundred thousand dollars were gained, would grow on two acres. There are in Switzerland some hill sides, formed into terraces, which have sold for two thousand dollars an acre; and in fortunate spots for gardening, as near London, a single acre will yield a clear profit of from eight to nine hundred dollars a year. These examples may perhaps explain, how without the great capitals of England, and without diminishing our farms, we may gradually render them richer and more productive by judicious culture."

BARN YARDS AND STERCORARIES OR MANURE HEAPS.

The following humorous exposition of the faults of some farmers, as respects the economy of their barn yards and stercoraries, is extracted from an Address to the Massachusetts Agricultural Society, by the Hon. Josiah Quincy.

"As we proceed to the farm we will stop one moment at the barn yard. We shall say nothing about the arrangements of the barn. They must include comfort, convenience, protection, for his stock, his hay, and his fodder, or they are little or nothing. We go thither for the purpose only of looking at what the learned call the stercorary, but which farmers know by the name of the manure heap. What is its state? How is it located? Sometimes we see the barn yard on the top of a hill, with two or three fine rocks in the centre; so that whatever is carried or left there, is sure of being chiefly exhaled by the sun, or washed away by the rain. Sometimes it is to be seen in the hollow of some valley, into which all the hills and neighboring buildings precipitate their waters. Of consequence all its contents are drowned or water soaked, or what is worse, there having been no care about the bottom of the receptacle, its wealth goes off in the under strata, to enrich possibly the antipodes.

"Now all this is to the last degree wasteful, absurd and impoverishing. Too much cannot be said to expose the loss and injury which the farmer thus sustains. Let the farmer want whatever else he pleases—but let no man call himself a farmer, who suffers himself to want a receptacle for his manure, water-tight at the bottom, and covered over at the top, so that below nothing shall be lost by drainage; and above, nothing shall be carried away by evaporation. Let not the size of his manure heap be any objection. If it be great, he looses the more, and can afford the expense better. If it be small, this is the best way to make it become greater. Besides, what is wanted? An excavation, two or three feet deep, well clayed, paved and "dishing," as it is called, of an area from six to thirty feet square, according to the quantity of the manure; over head a roof made of rough boards and refuse lumber if he pleases."

CURE FOR THE BITE OF THE RATTLESNAKE OR OTHER VENOMOUS ANIMAL.

We have had the pleasure of a conversation with Dr. Joseph Moore, of Gibsonport, Miss. who informs us that, during eighteen years residence in that climate, there have come under his particular care thirteen cases of the bite of the rattlesnake and moccasin, (the latter of which is more venomous than the rattlesnake) and that he has found the following a certain and immediate cure. The remedy was introduced into Europe from Asia, by Sir William Jones, and has the confidence of the medical faculty, wherever it has been applied.

Give to a grown person a teaspoonful of the volatile spirit of sal ammoniac, or what is commonly called spirits of hartshorn, in half a wine glass of water, every half hour, until the symptoms disappear, binding at the same time a linen cloth, of three or four thicknesses, wet with the spirits, unmixed with water, to the wound; the cloth to be wetted in the spirits every five minutes.

If the wound has been given some hours before the application can be applied, it should be scarified freely round the bite with a sharp knife or lancet, before the wet cloth is laid on.

The most severe and obstinate cases have been known to yield to this remedy in a few hours.

Very great care ought to be taken that the spirits of hartshorn should be kept tightly corked; for, if exposed to the air, it soon looses its efficacy.—*Village Record.*

EFFECTUAL CURE FOR THE CHOLERA MOREUS.

Take four ounces of chipped log wood, and one ounce of cinnamon, put them in three pints of water, and boil them down to a pint and a half; then strain it and add a pint of brandy, and four ounces of loaf sugar; then simmer it over a slow fire for a short time, and then put it up for use. For a grown person take a table spoonful, and a child a tea spoonful. Our informant, a respectable gentleman from Upper Marion Township, Pennsylvania, states that it has been used in his family, also by several of his neighbors, and in every instance it has been found to give almost immediate relief.

Philadelphia Union.

A correspondent informs us that if land is infested with white weed, it will be effectually destroyed in two years by pasturing sheep on it.

* See American Farmer, May 3, 1822.

Candles with wooden wicks.—A writer in the *Aurora*, states the result of an experiment he has made with wood for the candle wick. The wood was of a cypress shingle, split to the size of a rye straw and made round, so that the coat of cotton which was applied, might be more easily put on by rolling the stick upon a card which contained the cotton, and which had been previously well carded. The candle with the wooden wick lasted 7 hours while one of the same size (six to the pound) with cotton wick, lasted but 5 hours. Agreeably to this experiment, a pound of candles will last forty-two hours, when they would only last thirty under the usual way.

SAIL CLOTH.—We are pleased to be able to announce the successful establishment of a manufactory of Sail Cloth, on a new and improved principle at Stoneham, near this city, by a Mr. JOHNSON. Bolts of different numbers of Mr. J's manufacture have been sent for inspection to the Charlestown Navy Yard, whose fabric has been declared by competent judges, to be decidedly superior, in beauty and strength, to any article of this kind ever exhibited in the U. States.—*Boston Statesman*.

WOOL.—A correspondent informs us, that from January 1st to June 30th, of the present year, there has been imported into this District from foreign ports, *one hundred and ninety seven thousand nine hundred and four pounds of Wool*. A very sound reason for our farmers to grow more of that useful article, as it will command readily the money, from thirty-two to sixty cents per pound.—ib.

The Long Island Farmer states, that eleven pounds of well washed fine white wool was sheared, a few days since, from a merino buck belonging to Mr. James Scott.—*N. Y. Gazette*.

Canada Thistle.—Mr. Butler states from his own experience, for the information of farmers and agriculturists, that if the Canadian thistle is cut down in this month it will decay, for these reasons: the seed will be rendered abortive, and the stock, which is hollow, will fill with water and destroy the plant.

Ulster Ptebeian.

Easy cure for the Ague.—When the fit is on, take a new laid egg in a glass of brandy, and go to bed immediately. This very simple receipt has cured a great many, after more celebrated preparations have proved unsuccessful.

Arsenic.—A man, says an English paper, was poisoned in a very singular manner. His physician prescribed for him a dose of arsenic and sent it to a druggist to be put up. The druggist having adjusted his scales with the proper weights, turned to get the arsenic; while in the act of getting it, a worm or caterpillar crawled up the scales in which the weights were, and in this situation added its own weight, which occasioned the dose to be too large, and thus destroyed the patient.

Dense Population.—At Pawtucket, near Providence, on an area of from eighty to ninety acres of land, there are *three hundred and seventy seven families, and two thousand three hundred and ninety three individuals*.

NEW ENGLAND FARMER.

BOSTON:—SATURDAY, AUGUST 24, 1822.

A friend to our establishment, and a member of the Massachusetts Agricultural Society, having suggested to us the propriety and probable utility of republishing the Notice of the Cattle Show, List of Premiums, &c. with which this number commences, we have given it a place to the exclusion of some others articles intended for this day's paper. We are happy in being in any degree instrumental in furthering the views of the Society; and those to whom our first article conveys nothing *new*, will excuse its republication when they are informed that we have distant subscribers, who, probably, have not seen the list of premiums, and who, perhaps, may yet be induced to become competitors for those rewards, with which the bounty of the government and the liberality of the Trustees of the Society propose to remunerate superior skill and industry in various departments of Agriculture and Domestic Manufactures.

Rye Coffee.—A writer in the *N. E. Palladium* of the 23d inst. with the signature "A Middlesex Farmer," has controverted the assertions and theories of a "Friend to Health," (published in our last No. p. 19,) relative to the injurious effects of rye when used for Domestic Coffee, &c. We do not wish to condemn one of the staple articles of our country without at least giving it a fair trial, and its advocates a full and impartial hearing. We shall, therefore, give the remarks in favor of Rye Coffee, by "A Middlesex Farmer," in our next number.

COOKING FOOD FOR CATTLE.

(Continued from page 23.)

A great advantage, which results from preparing food for cattle by steaming or boiling is obtained by its converting *water* into *solid food*. This may appear incredible to those who have either not thought at all, or thought somewhat superficially on the subject. A few grains of reflection however, together with a spice or two of philosophy may serve to show that water is capable of affording a great deal of nutriment either in a liquid or solid form. We pass over the fact that some plants will grow with no other nourishment than what is afforded by water and air, and proceed to show that much nutriment for animals may be obtained from water, when combined with other substances, by the agency of heat.

It is a fact, which will be acknowledged as soon as suggested that a pound of Indian meal, or of rice, when boiled, gives more nourishment to man, or beast, than several pounds in a raw state. Count Rumford says "From the result of actual experiment it appears that for *each pound* of Indian meal employed in making hasty pudding, we may reckon *three pounds nine ounces* of the pudding."* And again "Three pounds of Indian meal, three quarters of a pound of molasses, and one ounce of salt, having been mixed with five pints of boiling water, and boiled six hours produced a pudding, which weighed *ten pounds and one ounce*."† The gain of weight in boiling rice is still greater. Now it is evident that these dishes must contain much more nourishment, as well as more substance after having been cooked than could have been derived from their materials, if swallowed in a raw state.

But we will give another example to show that water is not only capable of being converted by heat into solid nutriment, but may even be made to compose

a constituent part of sugar, one of the most nutritious of all substances. It is remarked by De Saussure that "As Starch boiled in water with sulphuric acid, and thereby changed into Sugar, increases in weight without uniting with any sulphuric acid or gas, or without forming any gas we are under the necessity of ascribing the change *solely* to the fixation of water. Hence we must conclude that *Starch sugar is nothing else than a combination of starch with water in a solid state*. The sulphuric acid is not decomposed, or united to the starch as a constituent.* Should any person still doubt whether water can exist in a solid state, combined with other bodies let him take the trouble to weigh a small quantity of quick lime, then slack it with water, and mark the increase of its weight. If then *solid nourishment* can be obtained from water by any cheap and practicable process, that husbandman must be blind to his own interest who omits to make use of such process.

Having thus as we conceive settled the point that it is good economy to steam or boil food for cattle, we will now attend to some enquiries respecting the best mode, of executing such processes. Our observations will be plain and practical: and should we fail to point out the best methods of effecting our object, we may perhaps be of service by directing the attention of others to the subject, who may be more capable of its investigation.

We are not fully acquainted with all the improvements in producing steam for steam engines and other purposes. We shall however advert to some inventions of the kind which appear to us simple as well as ingenious and perhaps superior to the means generally employed for similar uses.

A boiler invented by Count Rumford, and presented to the French National Institute is described in Aikin's *Atheneum*. The substance of the description is as follows.

This boiler was made on a small scale being a copper cylinder only twelve inches in diameter, and as many in height, closed at top and bottom with circular plates. From the bottom seven tubes projected downward, each nine inches long, and three inches across, open next the cavity of the boiler and closed at their further extremities. From the top of the boiler a short tube arose six inches in diameter, and three inches high, shut at the top by a copper plate, through which passed one tube for the safety valve, another to convey the steam when wanted, and a third to admit water from the reservoir to supply the evaporation. This last tube passed downwards to within an inch of the bottom plate, where it was furnished with a cork and floating ball, that was so placed as to keep the water six inches deep in the cavity of the boiler above that in the tubes.† The furnace in which this boiler was placed was of sheet iron three inches high, and seventeen inches in diameter, lined with masonry, which is not particularly described; but as the grate is mentioned to be but six inches in diameter, it is probable that the cavity of the fire-place was of a conical shape from it to the bottom of the seven tubes.

Count Rumford reports that the boiler exceeded his expectations—he supposes that a boiler made in this form would have more strength in proportion to the surface exposed to the same internal pressure than one in the usual shape, and that it would be less liable to

* See a *Treatise on Manures*, printed in the same volume with Sir Humphrey Davy's *Agricultural Chemistry*, Philadelphia Edition.

† This contrivance is probably the same, or bears some analogy to what Mr. Smith calls the "self-supplying valve, which is apt to get out of order." See our last No. p. 23, 2d col.

* Rumford's *Essays*, vol. 1. page 258, Boston Edition.

† Rumford's *Essays*, page 261.

loss of heat from cold air coming in contact with its internal surface.

When a boiler of this kind is constructed on a large scale, the Count mentions that the seven descending tubes may be made of cast iron, and the rest of the boiler sheet iron, or copper; and thinks that when of this construction, it will cost less than one of equal surface of the usual form.

A Mr. Lloyd obtained a patent in England for a boiler, which is described in substance as follows:

The bottom of Mr. Lloyd's boiler is introverted, so as to form a cavity which would nearly hold as much as the boiler itself, if it were reversed; the sides of this cavity are somewhat conical, and from the top a pipe passes out at one side through the cavity of the boiler to the air; the whole boiler or kettle is surrounded by an external case, a little distant from it all round, closed at top, and having a small opening at the side to give vent to the smoke. The small pipe adds somewhat to the effect, but is not absolutely necessary. For large boilers the cavity at the bottom need not be so large in proportion as that described. If it rises into the boiler a third of its depth, it will probably be sufficient. The flame and radiant heat of the fuel is reverberated in all directions in the cavity of the hollow bottom, and must (says the inventor) have much more effect than what can be produced by its unconfined lateral action against the external sides of a number of upright tubes, however well arranged.

A patent for "a new method of applying fire for the purpose of heating boilers," &c. obtained in England by Mr. Thomas Rowntree, has the following description:

"For heating of coppers, boilers, furnaces, ovens, and stoves, my fire place is much smaller than heretofore made use of for the same sized copper, boiler, furnace, oven or stove. Instead of placing my fire-place, according to the common practice, immediately under the boiler, or other vessel, I place it at the front side or end, as I see most convenient, in such a manner as to oblige the flame to rise in the front-side or end, and pass all round the vessel, &c. while at the same time it strikes the bottom of the vessel, &c. without suffering the flame to pass off in a flue, or flues, as it usually does in the common way, and by that means sending the heat into the flues, instead of its being used where it ought to be, namely, on the vessels, &c.; this my method effectually prevents; for by means of a small perpendicular, or other opening into a box or trap, which I call a reservoir, and which I place horizontally or diagonally, as the situation may require, and is made of iron, brick, stone, or any other material capable of bearing heat, where a valve is placed, riding on centres or otherwise, and standing in a diagonal or other direction, as is found most convenient, the flame is returned or impeded in its progress to the chimney, and made to descend below the bottom of the vessel, and pass out at the bottom, top, or side of said box, trap or reservoir, into the common chimney. This reservoir is placed between the vessel, &c. and the chimney. To the opening which admits the flame into the reservoir, are affixed, when necessary, sliders, registers or stops, which serve to increase or diminish the heat. The valve in the reservoir is for the same purpose in another degree, which more immediately appertains to increasing or diminishing the draught, which it does by moving the said valve into different positions, as the speed of the operation may require."*

The above described boilers, and method of applying heat to them, or something like them, may perhaps be

* For further explanation of this method, see *Witch's Domestic Encyclopedia*, Art. *Boiler*; likewise, *Encyclopaedia of Arts*, vol. xiv, p. 1. First Series.

found expedient for farmers, who perform their operations on a large scale. But for common use we believe a five pail kettle so called set in the common way and filled about half full of water, would fully answer the purpose. Steam at the temperature of boiling water, Mr. Smith thinks is best adapted to the purpose of steaming roots and other food for cattle. At this temperature, steam occupies about 1200 times the space of water; or one gallon of water reduced to steam of the same temperature with boiling water, will furnish 1200 gallons of steam. It is true that steam when it first begins to operate on roots and other cold raw substances must be somewhat rapidly condensed. But if the apparatus is tight, or if even a coarse thick cloth is thrown over the vessel in which the food is steamed, as recommended by the Complete Grazier, the whole will speedily become so much heated that the steam will be but slowly condensed, and of course the supply from the boiler need not be very copious. We cannot, therefore, see for what purpose connected with the steaming of any reasonable quantity of dry food for cattle, a boiler of 100 gallons capacity should be needed. In preparing liquid messes for cows giving milk, &c. by the agency of steam, its expenditure will be great, in consequence of its being condensed by contact with cold water. But that steam may be made a vehicle for conveying heat with very little waste by evaporation, has been proved by actual experiments. We shall cite one in this place. A letter from Mr. Robertson Buchanan, Civil Engineer, Glasgow, is published in *Tilloch's Philosophical Magazine*, vol. xxxviii, p. 76, from which the following is extracted. "A place of worship has been for a considerable time heated by steam on a most simple plan, so as to require little or no attendance, and does not require any water whatever to be added to that first put into the boiler, above thrice in a winter." We believe in this case the furnace and boiler were placed without the building which was heated by the steam, and the steam was conveyed by suitable tubes from the boiler into metallic vessels or reservoirs placed in the apartment which was warmed by its agency; and the tubes and reservoirs were so arranged that when any part of the steam became condensed it ran back into the boiler.

(Concluded in our next.)

SUMMARY OF CURRENT EVENTS.

A late arrival from Gibraltar has brought intelligence from Spain to the 11th of July. By this it should seem that things in that quarter wear a very menacing aspect. The population is divided into three parties, viz. The advocates for unmodified democracy—the sticklers for the old order of things, an absolute monarchy—and those who are friends to the present constitution, or a limited monarchy. On the return of the King from adjourning the Cortes, his carriage was beset by riotous assemblages, and his guards, being pelted with stones, fired on the assailants and compelled them to disperse.

The next day (July 1st) sanguinary scenes were anticipated, but nothing realized worse than menacing words and movements. But during the night four regiments of guards left their barracks, and encamped a league to the northward of Madrid. Many of their officers, and some privates, however, refused to accompany them, and joined a guard left in the Palace. The seceders, amounting it is said to about 4000, appointed a Frenchman (whose name is not mentioned) leader, and took the road to the French frontiers, avowing themselves to be friends to absolute monarchy. They were followed by Gen. Morillo, an officer faithful to the constitution and existing form of government, who attempted to persuade them to return to Madrid to protect the King, and perform their other incumbent duties. This they refused to do, and in their turn attempted, in vain, to seduce him from his allegiance.

The King remained at Madrid, to which tranquillity had been restored. He is considered as the leader of

the Constitutionalists, and has been called upon to put himself at the head of the militia and march against the guards. This step, which would be the commencement of a civil war, he does not appear to be prepared to take.

The following (says the *Centinel*) is an extract of a letter from a well-informed American gentleman in Gibraltar:—"Gibraltar, July 11. We have very serious accounts from Madrid. The Anti-constitutional party are taking measures to reinstate the old order of things—an unlimited monarchy, privileged clergy, &c. The country is in a state of anxious disquietude, and much blood is about to be shed in civil strife. Spain is in a wretchedly forlorn condition, and her capitalists are getting their property out of jeopardy. Nearly a million of dollars have been remitted to this place within a fortnight."

An article from Curacao, by the way of Norfolk, states that Gen. Bolivar had fought a battle with the Spanish General Cruz Mourgeon, on the borders of Upper Peru, which lasted all the day, and that Bolivar was compelled to retreat the next morning. The forces were stated to have been 5000 on each side; that the patriots lost half their army and one general; and that the loss of the Spaniards had been uncommonly severe.

Complaints (says the *Palladium*,) are loud in England against the Bank, for not adopting some plan to render the counterfeiting of their bills more difficult, and the impositions and executions less frequent. Mr. Perkins' mode has been adopted by most of the private Banks in England, and by the new Bank in Portugal.

A battle is said to have taken place between the Turks and Salots, which lasted three days, in which the Turks were defeated with the loss of 600 men taken, including fifty eminent Turks.

There seems to be no prospect of war between Russia and Turkey. On the contrary, a *Vienna Gazette* says, "We expect a declaration from the Emperor of Russia, by which he will detach himself from the Greek cause."

In France there have lately been some attempts to organize insurrections against the existing government. It does not appear, however, that they were successful.

A public dinner has been given at the city of London Tavern, to Don Francisco Zea, Vice President and Plenipotentiary of the Republic of Colombia.

The wheat harvest had commenced in England, previous to the date of the last intelligence, and is said to be very productive.

A great part of a late No. of the "Farmers' Journal," (an agricultural newspaper printed in London) is filled with details of Irish distress. A writer upon that subject observes that "beyond all doubt government will have to support the entire population of Ireland, before twelve months elapse, if it persist in refusing to allow a sufficient supply of legal tenders."

The author of *Waverley* is engaged in writing a new novel, to be called "Peveril of the Peake." It will be published in the autumn.

MARRIAGES.

In this city, Mr. George Bell, to Miss Mary Gardner. In Mantanzas, Mr. Michael S. Tracy, formerly of this city, to Miss Louisa Andrea, of M.

DEATHS.

In this city, Mrs. Therese Kenny, wife of Mr. Asa K. 47.—Mrs. Mary Forsaine, wife of Mr. Nath'l F. 45. Mr. William Todd, 75.—Mr. James Fenno, 62.—Charlotte H. daughter of Capt. Pardon Gifford, 15 months, killed by falling from a chamber window.—Mrs. Sarah L. Draper, wife of Mr. Edward D. 67.—Widow Lydia King, 77.—Mrs. Rachel, wife of Mr. Selim Hayden.—Widow Lydia Hunt, 69.—Mr. Horace Fairbanks, 27.—Emily, daughter of Mr. David Whiting, 2 yrs. 8 mo. In Taunton, Miss Augusta Thomas, 19, daughter of the late Mr. Isaiah T. Jr. of this city. In Mantanzas, Mr. Worham Priest, of Boston. Deaths in N. Y. last week, 102.—In Philadelphia 91.

ON THE EVILS OF A MISCHIEVOUS TONGUE.

BY T. G. FESSENDEN.

Many have fallen by the edge of the sword, but not so many as have fallen by the tongue.

Ecc. Apoc. xxviii, 8.

Tho' millions the sword of the warrior has slaughter'd,
While fame has the homicide's eulogy rung;
Yet many more millions on millions are martyr'd—
Cut off by that cowardly weapon, the tongue.

One sword may be match'd by another as keen,
In battle the bold man a bolder may meet,
But the shaft of the slanderer, flying unseen
From the quiver of malice, brings ruin complete.

An insolent tongue, by a taunt or a gibe,
Enkindles heart-burnings and bloody affrays;
A treacherous tongue, when impell'd by a bribe,
The guiltless condemns, or a nation betrays.

A smooth subtle tongue vile seducers employ
The fair sex to lure to libidinous thrall;
A slip of the tongue may its owner destroy,
And the tongue of the serpent occasion'd the fall.

Then be it impress'd on Columbian youth,
That the tongue is an engine of terrible force;
Not govern'd by reason, not guided by truth,
A plague, which may desolate worlds in its course.

From the New York Statesman.

ON THE WILD INDIGO PLANT.

Messrs. Editors,

While we are anxiously copying the manipulations of European artists in our dychouses, we are neglecting to use an indigenous plant, far more valuable than any thing contained or used in Europe. Our blue dyers began with the ash vat, described by Berthollet, and others, and which Dr. Bancroft informs us, "is so costly, as to be chiefly employed to dye silk." If this were the only objection, it would in itself be sufficient to induce an alteration; but when in addition to this we know that the color is not so bright, or so permanent, as when indigo is fermented by some vegetable basis, containing in itself the primitive coloring matter, we shall be much surprised that this mode of dying has been so long continued.

The plant used by Europeans, from time immemorial, to ferment their blue vats, has been the isatis, or woad, which is indigenous in England and other parts of Europe. It is not surprising, therefore, that it should be used there, as nothing better offered itself; but in the U. States we have the wild indigo plant, growing abundantly every where, that possesses all the valuable fermentative properties of woad, with twenty times as much coloring matter, and giving a tint that for permanency and brilliancy is unrivalled.

"It is well known, according to Mr. Clarkson, that the African dyes are superior to those of any other part of the globe.

"The blue is so much more permanent and beautiful than that which is extracted from the same plant in other parts, that many have been led to doubt whether the African cloths brought into this country (England) were dyed with indigo or not. They apprehended that the colors in these, which became more beautiful upon washing, must have proceeded from another weed, or have been an extraction from other weeds which are celebrated for dying there—

The matter, however, has been clearly ascertained; a gentleman procured two or three of the balls, which had just been prepared by the Africans for use; he brought them home, and upon examination found them to be the leaves of indigo rolled up in a very simple state."

Having noticed the above article in Dr. Bancroft's incomparable work on permanent colors, I was induced last fall to collect some of the plant, not with an intention of coloring with it, as I had no means of preparing for that purpose, but to use the woad vats in place of swill from bran and madder, to assist their fermentation, which were weak, owing to the woad being of an inferior quality. I gathered nearly a cart load, too late in the season to obtain it in maturity, and had it boiled, and used the liquor when wanting. The plants were too old to retain much of those succulent juices in which their value chiefly consists, yet it answered the intended purpose, for the liquors so long as I was enabled to supply them with it, worked much freer and more vigorous, than in the usual way, and although this experiment was not decisive, for want of a sufficient quantity, and from the plant being too old when gathered, yet I am convinced by the effect produced that it may be used to great advantage.

As the indigofera is found every where in the United States, and in many places in great abundance, it would seem desirable that some experiments should be made on it, to test the superiority attributed to it, of which there appears but little room for doubt; for if this were established it would become an object of great national importance, inasmuch as the color made from it, would be superior to those obtained from Europe, and thereby give to American fabrics the preference in color in which they are now decidedly deficient.

I apprehend the balls are made by simply placing the leaves together, face ways, as they are gathered; that when a ball is made it ferments, and exudes sufficient moisture, to cause an adhesion of the mass; and that this process develops the coloring matter, so as to enable the vat liquor to extract it with sufficient facility. This is not the only mode of preparing the plant. The following extracts will prove there is considerable latitude, both in preparing and in working it afterwards.

Capt. G. Roberts, in the account of his voyages, mentions "the indigo plant as growing wild at Bonavista; and that the natives prepare it, only by pounding the leaves of the shrub while green, in a wooden mortar, with a wooden pestle, and so reduce it to a kind of pulp, which they form into thick round cakes, or balls, and drying it, keep it till they have occasion to use it for dyeing their clothes. Mr. Mungo Park, in the account of his travels in Africa, says, "that to dye cloth of a lasting blue color, according to the practice of the negro women, the leaves of the indigo when fresh gathered, are pounded in a wooden mortar, and mixed in a large earthen jar, with a strong ley of wood ashes, (chamberley being sometimes added) and the cloth is steeped in this mixture, and allowed to remain until it has acquired a proper shade. When indigo is most plentiful, they collect the leaves and dry them in the sun, and when they wish to use them, they reduce a sufficient quantity to powder, and mix it with ley as before mentioned.

Mr. Marsden, in his history of Sumatra, says, "the indigo shrub (Yaroom) is always found in their plantations; but the natives, to dye with it, leave the stalk and branches for some days in water to soak, then boil it, and with their hands, work some quick lime among it, with the leaves of the paco sabba for fixing the color. They then drain it off, and use it in a liquid state."

Other extracts might be added, confirming the good qualities of this plant, but I think enough has been made to convince the most incredulous reader, that it may be appropriated without much difficulty, to purposes highly valuable.

The indigo made from the wild plant is said to be of much better quality than that which is obtained from the cultivated, but that it does not contain so great a quantity of coloring matter.

The leaves should be gathered when the plant is in full blossom, which at three cents a pound, would be a lucrative employment for country children, and if a sufficient supply of the dried leaves could be obtained at that price, it might be rendered, when manufactured ready for use, at less than the first cost of woad in England. By this means the American dyers could be supplied with a native article now considered as useless, equal to woad as a fermentative medium, containing twenty times as much coloring matter, more permanent than manufactured indigo, and giving a color unequalled by any other plant, or process.

HOPSON.

Cleanliness.—Aristotle ranks cleanliness as a minor virtue; and Addison not only recommends it as a proof of refinement, and as the means of conciliating esteem, but considers it as having some analogy to purity of heart. To the opinions of these good judges in morals we may add, that it holds a place amongst the charms of social life, whilst it is, at the same time, the greatest preservative of health.

Value of Time.—The difference of rising every morning at six and eight o'clock, in the course of forty years, supposing a person to go to bed at the same time he otherwise would amount to 29,200 hours, or three years, 121 days, and 19 hours, which afford eight hours a day for exactly ten years, so that it is the same as if ten years of life, (a weighty consideration) were added, in which we may command eight hours every day, for the cultivation of our lives and the despatch of business.

It is a mortifying reflection, says Dr. Johnson, for any man to consider what he has done compared with what he might have done.

"Mr. P." said a citizen, "has a vast deal of wit." "Very probable," said another, "and he seems determined to keep his stock good for he never was known to expend or to make use of any."

Sir Thomas Overbury observes that the man who has nothing to boast of but his illustrious ancestors, resembles a potatoe—the only good belonging to him being under ground.

Dinner Time.—A person asked a Grecian philosopher what he thought was the proper time to dine. "Sir," said the ancient, "the proper time of dinner, with the opulent, is when they choose; with the poor man, when he can."

NEW ENGLAND FARMER.

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No. 5.

FOR THE NEW ENGLAND FARMER.

POINTS OF A HORSE.

MR. EDITOR,

A good horse is a desirable acquisition, and he who finds one, in the course of his life, may think himself lucky. The points, or marks, of a good horse, are perhaps not generally known, among your readers, though to many they may be familiar. A person who is well acquainted with the marks indicative of a good horse, is not very likely to be deceived in regard to his physical powers, though he may be, with respect to the character of the animal. A horse may possess all the points, or marks, characteristic of power, and at the same time, have some vice, that will render the use of him unpleasant, or dangerous. It is therefore advisable, before purchasing a horse, to give him a thorough trial, and in a variety of ways.

A particular quality, in a horse, is sometimes so desirable to the purchaser, that he is willing to dispense with many good points, for the sake of it. For instance, the difficulty and inconvenience of tying a horse, in the streets, are so great, that many gentlemen content themselves with indifferent horses, if they but possess the virtue of standing well. Very much may be known of a horse's character by his physiognomy; but to describe the different expressions of the human countenance is difficult, and the less definite ones of a horse, I shall not attempt—my object is merely to give some of the most prominent marks, or points of a good horse; a description of which may serve as a guide, in the selection of this useful animal. I begin with the head, which ought to be small and progressively to diminish in weight, and size, as it approaches the nose. The neck ought to be short and light. The head cannot be too small, nor the neck too short and light. The reason is obvious. The head and neck of the horse are placed wholly anterior to his points of support. The shorter the neck, therefore, and the lighter the head, the less likely is the horse to stumble and fall. The more weight there is anterior to the fore legs of a horse the more difficult it is for him to keep his balance, or to recover himself on making a false step. This can be explained upon the principles of the lever, or by the steel-yards. Suppose a horse's neck ten feet long, and a head of a common size, attached to its extremity—the weight of the head, with this immense leverage, would be so great, that the weight of the body would not counterbalance it, and the horse would constantly be falling upon his nose.

A horse with a long neck is not only more likely to fall, but *ceteris paribus* his wind cannot be so good. The longer the neck, the more difficult is the access of air to the lungs. A horse, therefore, with a long neck, will have short wind; and is only calculated for slow draught. He will not answer for the turf. No horse can run well with a long neck.

The next point is the shoulder, several circumstances concerning which are important to be considered. The scapula or shoulder blade ought to be broad and long, and the muscles

attached to it thick and large. When the hand is passed down the neck and the shoulder blade cannot be felt, it amounts to a certainty that that horse has good action. The apparent thickness of the shoulder depends upon the obliquity of the shoulder blade, and in proportion as it is oblique, so is its motion limited.

The carcass of a horse ought to be a subject of particular attention. This cannot be too circular. A cylinder gives the greatest possible capacity. A horse, therefore, with a round chest, has more room for the expansion of his lungs than a horse with a chest otherwise formed. His wind must therefore be better; besides he fats much easier; he requires less food. A horse with a round chest will keep fat upon almost any thing, whereas it is almost impossible to fat a horse with a narrow or flat chest. A horse with a thin narrow chest cannot bear heat, has bad wind, is always lean, weak and tender.

The vigor of a horse depends more on the formation of the carcass than on any other point, and the reason must be obvious—the carcass contains the heart and all the important and vital organs.

The spine, or back, which extends from the fore to the hind quarters, cannot be too short for strength. A short, hump-back is indicative of great strength, especially in carrying weights. We arch bridges for the purpose of adding to their strength, and a horse's back may be compared to a bridge, and the four legs the four pillars of support. The shorter the arch, the greater weight it will support, and for the same reasons, a horse with a short, curved or hump-back (other things being equal) will carry the greatest burthen.

Although a short back is indicative of strength, it is not of speed and action. A long back must obviously give greater room for action. The Hare and Weasel have, in proportion to their size, extremely long backs; and "to run like a March Hare," is proverbial. A long back, however, must be a weak back, and unable to support heavy weights. In choosing a horse, therefore, for common use, it will be best that he should have a back of a medium length; neither too long nor too short.

The hind quarters of a horse ought to be long. I mean by hind quarters, the parts from the haunches backwards, the parts that lie between the *os Ilium* and the *os Ischium*.

The hock or gambrel ought to be long and broad. The *os calcis*, or heel bone of this joint, corresponds to the same bone in the human subject. The longer this bone is, and the further it projects backwards, by so much the greater length of lever, do the muscles act, which are attached to it. It must be obvious, therefore, that this is a very important point in a horse, and one that ought never to be overlooked. It is impossible to have a good horse, without a good hock. A horse may be a good animal with bad fore legs, but he never can be with a bad hock. The fore legs merely support the body—the hind legs propel it forward. The horse puts himself in motion and performs all his functions *solely* by the action of the mus-

cles attached to the *os calcis*. The further this bone projects backward, the longer is the lever by which the muscles act, and the greater will be their propelling power.

The legs of a horse ought to be flat—the bones small and the muscles large. Bones do not give strength, and when the bones of the leg are sufficiently large to support the weight of the animal, all over this is superfluous, and worse than superfluous; it is a dead weight upon his motions. Bones are mere levers, and the skeleton a mere frame, on which the muscles act. Bones are, in themselves, inert substances. Muscles give strength. All the motions of the animal are performed by his muscles. The relative position of the bones may be such as to add very much to the power of the muscles. When the bones are so placed with regard to each other, as to give a long leverage to the muscles, such muscles act with increased power; and in this consists, in a great degree, the excellency in the mechanism of the horse.

The above are the most prominent marks or points, as they are called, of a good horse. In the purchase of a horse, however, many other circumstances are to be taken into consideration. It is of immense consequence that he should have perfect feet. It is obvious, that a horse with bad feet, however good his points may be, must be rather a useless animal. A horse with bad feet, is always an unsafe horse; he will always trip, and is very liable to fall. Any tenderness or uneasiness about a horse's feet, renders him unsafe. Even a shoe, that does not set easy, will surely cause a horse to trip.

The following description of perfect and imperfect feet, is taken from Goodwin's New System of shoeing horses—an Abridgment of which has recently been published in this city.

Perfect Hoofs.—"A perfect foot has the shape of a cone, except at the heel. The front, which comprises the largest portion of the wall or crust, is the most cone-like, and the quarters are less so. When the horse is standing on a pavement, the foot, at its base or bottom, is much larger than at the top or coronet, and the crust descends from the coronet to the bottom in a regular slope, at an angle of about 45 degrees in front."

"The hoof should be smooth and even on its surface, strong, tough and vigorous in its appearance; the heels should be well back, and the nearer they approach to the back part of the frog the better, and the more the quarters and heels approach to a perpendicular position, the more they are calculated to support the weight above: the space appropriated for the frog should be wide and open."

"Having described as much of a perfect foot as can be seen when the horse is standing, I proceed to describe the appearance and shape of a perfect hoof, when the foot is taken up. The first circumstance that deserves attention is the uniform box of horn, which being divest-

ed of all its superfluous or exuberant parts, approaches to the form of a circle."

"The words 'superfluous parts' may require some explanation:—Suppose a horse to have run in the fields until he is four or five years old, and that his feet have never been touched by an instrument, this state of the feet, would by many persons, be called a state of nature, and the foot would therefore be thought perfect; but it ought to be considered like any other production of horn, which has grown into a state of exuberance in some parts, and is worn and broken in others. When the hoof is divested of these exuberances in the same way, as we cut our nails to keep them in a fit state, I consider that the proper time to look at the hoof, to observe its natural shape. It will then appear that the base or bottom of the crust descends to the lowest part of the foot, and projects beyond the sole, and is that part which the horse rests upon. It should therefore be thick, firm and strong."

"As the crust is that part on which the shoe rests, and to which it is nailed, it is very important that it should be perfect in thickness and strength. The bars or binders, being a reflection or continuation of the crust, should be firm and strong, and should have an oblique position in the descent to their union with the bottom of the frog. The sole should also be firmly and uniformly united with the crust and bars, and be strong and concave."

"The frog, which is uneven in its surface, be-

ing convex on each side, concave in the centre for about half its length, and then convex to its termination, should be strong, full of horn, prominent and vigorous in its appearance, open in the centre or cleft, and full on its sides and points.

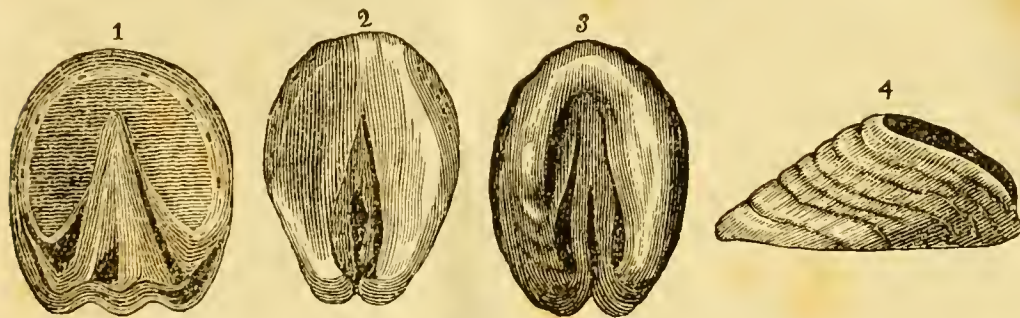
"The space between the frog and bars should be open, distinct, and clear, and the heels of the crust should come as far back, or nearly so, as the heel of the frog."

Weak Feet.—"Feet of this description are frequently large, flat and thin, though there are also some which are very thin, but not out of proportion in size: both kinds are uniformly concave on the front part of the crust, and curl up at the toe, in proportion to the extent of the defect. It is equally observable, that the crust in feet of this description, is uneven on the surface; being frequently indented, wrinkled, and having a ringlike appearance."

Small Feet.—"It is not unfrequent to see large horses, but chiefly among those which are thorough-bred, with small feet. The base of the feet of these horses not being broad enough to support the superincumbent weight, they are consequently insecure on their legs, and soon break down."

Large Feet.—"There is likewise a class of horses with feet of a form the reverse of the last described, having no particular malformation, but being too large and unwieldy."

"When such horses are required to work, the weight of the foot has a manifest effect on their action, rendering it slow and clumsy."



EXPLANATION OF THE CUTS.

FIG. 1.—Natural hoof, and representation of the French method of driving the nails within the crust, and going through a portion of the sole.

FIG. 2.—Contracted hoof.

FIG. 3.—Convex sole, or pumiced hoof.

FIG. 4.—Flat thin hoof, with weak low heels.

From the American Farmer of August 23.

TUNISIAN SHEEP.

We have great pleasure in recording the following authentic history of an importation of Tunisian Sheep, and we particularly desire that our correspondents would furnish us with accounts, as detailed, respecting every importation of Live Stock, which has come within their knowledge; and especially, when the facts so conclusively demonstrate the tendency of agricultural pursuits and subjects to inspire all who embark therein, with a liberality of feeling and design which, so far from admitting the idea of venal rivalry or sordid monopoly, bid every one generously welcome to the fair enjoyment of new sources of profit.

Belmont, August 14, 1822.

DEAR SIR,

In your paper of the 2d instant, I see queries respecting the TUNIS BROADTAILED SHEEP. "How many were received? and were any sent into other states?"

I have given a full account of these sheep in the 2d volume of the *Philadelphia Agricultural Memoirs*. My opinions continue unaltered; and I had supposed the subject to have been exhausted. I have no desire to revive it, further than to answer your queries as fully as historical facts require; and that with no personal objects. I do not relate the circumstances to blazon my own exertions, but under a persuasion that a useful moral may be drawn from them. I am the only person acquainted with the whole subject, to which I do not mean to give more importance than your inquiries seem to elicit. Col. Pickering, with his accustomed candor, has published, in *Poulson's paper* of the 4th or 5th of July last, what he thought proper as to himself. The paragraph has not his signature; but he informed me of his having written it; and I mention it, for reasons operating with me.

I understood, from Gen. Eaton, and so did Col. Pickering, that eight or ten sheep were

shipped; but only a pair arrived. Being far preferable to the coast sheep, they were procured by Gen. Eaton, (as he informed me,) of the Dey's farm in the interior of the country, by the Dey's permission, as a compliment to the United States. It was therefore proper that they should pass under the direction of the Secretary of State. They arrived in the *Delaware*, in a public ship; and of course, were placed by Col. Pickering in the neighbourhood of the port of arrival. It would have been out of character with him, (only one pair having arrived) I have sent them into any other state; nor would he have so done, in whatsoever way he might have received them. I was informed that the rest of the shipment perished at sea. Capt. *Geddes*, to whose care they were committed, had a character too respectable to permit any supposition that he was either negligent or selfish; yet Gen. Eaton expressed much dissatisfaction and chagrin.

The burthensome, though not regretted, deposit, was put into my hands by Col. Pickering. Considering myself as a kind of trustee; and always desirous of spreading through our country the benefits of such acquisitions; I refused offers of emolument; though no terms forbidding personal profit, were made. I gratuitously dispersed the breed, not only in Pennsylvania, but into the neighbouring states; at no small trouble and expense to myself. Several victuallers, finding the superiority of the mutton over that of all other sheep, both in quality and price, made up a purse and offered any sum I chose to fix for the Ram. I refused the proffer, and after his covering, during several seasons great numbers of ewes sent to my farm; and there pastured and served without charge; he was conveyed to my late friend, Gen. *Hend's* farm near Lancaster; where he was killed by dogs; after propagating the breed extensively. The ewe met the like fate, on my farm; having yealed a healthy lamb at sixteen years of age.

Chancellor *Livingston's* sale of two *Merino* sheep for \$3000, gave impetus to the ardo which had begun to operate in favor of the breed. Had he given them away, the effect would have been far otherwise on the minds of both farmers and speculators. *Voilà les hommes* Fancy paints profits in proportion to price paid. Small gains are counted on gifts, or cheap purchases.

Discovering the impolicy of continuing (how ever beneficial my distributions may, at first have been,) gratuitously to bestow lambs; and of my other modes of dispersing the breed without charge; I encouraged my neighbor, *Thomas Bones*, in raising fine Broadtailed Sheep, from my stock, for sale on his own account. He did great justice to my confidence in him; and sold considerable numbers; many whereof at their request, I selected for the purchasers. Many were sent to *South Carolina*, as I mention in our volume. The credit of, and demand for the sheep were really enhanced by the prices paid for them, though those prices were moderate, indeed compared with those of *Merinos*; which overwhelmed the *Tunisians* in public opinion, during the *Merino-fever*.

Country people do not value an article given away; presuming that it is held by the donor in small estimation; and in this they are not singular. The usual short sighted practice among farmers, of selling to victuallers, or in the mar-

ket the best lambs and sheep; and keeping only those unsaleable; deteriorated the breed most lamentably. My tenants, who had the charge of my flock, had their share in this culpable propensity. Several butchers posted breeders from my stock, in *Jersey* and *Delaware*. The progeny were slaughtered for the market. This also diminished the multiplication of the breed. Yet I was surprised by the information I frequently received, at the numbers produced from an original pair, even under circumstances not always encouraging.

I know of no other importation of Barbary sheep, contemporaneous with the subjects of this account. Long after the arrival of the pair mentioned; I was informed that Capt. *Baron* had brought some *broadtailed coast sheep* into Virginia. But from the accounts of them I had heard, they were inferior to the Mountain sheep of *Tunis*: and so are all other African sheep which have fallen under my notice. The sheep of the Eastern countries, Asia and Africa, are generally (with some exceptions,) *broadtailed*.

Many years ago I saw, in England, in the King's flock at Richmond, several of the *Laticaudæ*. Some of them with cumbersome trailing tails, borne on little wheel carriages, dragged after them. None of them, in appearance, equal to the *Tunis Mountain sheep*. In my old, learned, and valuable work,—*Scheuchzer's Physice sacra*.—there are plates, admirably executed, of victims for the Jewish altars. Among them, trailing *Broadtails* similar to those I saw at Richmond. So that there are many varieties of the *Laticaudæ*; and the success of breeders entirely depends on the selection of the valuable kinds.

The name, (as you seem to require it) I gave to the Ram, was *Caramelli*, that of the Ewe, *Selina*. They will, perhaps, become memorable, as the first emigrants to our country, from this branch of the extensive family of the *Laticaudæ*.

Not knowing, exactly, the object of your queries, I may have enlarged unnecessarily. But you may gather what you deem satisfactory, for any purpose you contemplate. Yours truly,

RICHARD PETERS.

JOHN S. SKINNER, Esq.

From the New England Palladium of Aug. 23,

RYE COFFEE.

Messrs. Editors,

A writer in the Palladium of the 16th inst. who signs a "Friend to Health," has advanced a theory on the effects of *Rye*, which appears so absurd, that I am almost inclined to think he meant the article as a *hoax*; be that as it may, the subject is of too much importance to the community to permit such unfounded assertions to pass without refutation. This writer attributes the cause of *weak limbs* and *debilitated systems*, which he says a vast number of persons have suffered from, to the use of "a compound of half *Rye*, and half imported Coffee, ground together;" and that "*Rye* is peculiarly calculated to produce that effect."—Now, if he had stated that a free use of the *spirit distilled* from *Rye* produced such effects, he might have found but few to controvert his position. But, that *Rye*, its *outer coat* or *bran*, by any preparation, except by distillation, is deleterious to man or beast, I pledge myself to prove to the satisfac-

tion of every unprejudiced person, is an assertion not founded on facts.

If the writer will apply to the able and worthy Professor of Chemistry at the University, he will learn, that most of this *outer coat*, which he says produces those debilitating effects, is, by the *roasting* process, converted into *carbon*—in plain English *charcoal*, which is *insoluble*, and of course, if the decoction is well fined, no part of it will be taken into the system, and if it was, no injury could possibly result, as a little charcoal is considered by most medical men as not unhealthy, and for some complaints is prescribed in large doses.

This "Friend to Health" admits that "a person may eat the *fine meal*, without witnessing any ill effects." Indeed! I will go farther, and say that it is a fact which can be fully substantiated, that five, or perhaps more, that ten millions of men that have composed the armies of *Russia*, *Sweden*, *Denmark*, *Prussia*, and the German Powers, during the wars of the last century, have subsisted upon little else than bread made with *Rye Bran*, and which they considered a luxury if the *bark of trees* was not mixed with it—for such compounds were often furnished by Peter the Great and Charles the 12th—yet history makes no mention of any complaint of "*weak limbs*, *debilitated systems*, or *uncommon inclination to sleep*," except what was caused by the innumerable *forced marches* those wretched beings were harassed with!

But this writer's theory is overthrown nearer home. The hardy yeomanry of Massachusetts eat very little other bread than *Rye*, coarsely sifted, mixed with Indian meal. The *outer coat* of *Rye* in our climate being very dry and brittle, is broken so fine in grinding, that a great portion passes through the *sieve* and is eaten.—Moreover, the lovers of *brown bread*, and I am one of them, well know, that the *finer* the *sieve* the less *sweet* the bread. But we have no complaint among our farmers of *weakness of limbs*, or that they are, like a parcel of *Turks*, under the influence of *opium*.

I presume that if the "Friend to Health" had ever been in *Market-street*, in the City of Philadelphia, he would not have introduced *Horses* to support his theory. He might there have seen fine teams of that noble animal, as large and powerful as Elephants, and as fat as Whales, just off a journey of 5 or 600 miles, across the Alleghany mountains, with a load of four or five tons, that were fed the whole route on *Rye*, *outer coat*, chaff and straw cut up together, and as much too as they wanted; without any other grain, or scarce a lock of hay during the whole journey! He happens to be equally unfortunate with the *Pigs* he has bro't forward to prove that *Rye Coffee* is injurious to the human system, for on this point I do speak from the experience of near thirty years, and from the use of more than a thousand bushels of *Rye* and *Rye bran* in rearing and fattening *Pigs*. This writer says that after eating bran they will "lie down and swell with weakness!" I have seen them lay down after being gorged with this nutritious food, and they might have appeared to the eyes of some persons to "*swell with weakness*," but I believe that it would appear on *dissection*, to have been caused by a full belly of this *poisonous* stuff, and their disposition to *sleep*, from its fattening properties! I could cite many examples to shew the benefit

of feeding animals with *Rye* and *Rye bran*. But it is time to return to *Rye Coffee*, which appears to have been extensively used in the middle States, particularly in Pennsylvania, for several years past, but no accounts of its debilitating effects have reached us; on the contrary, I shall offer high *Medical* authority to prove that it is a strengthening beverage for the stomach. Gen. Calvin Jones, of North Carolina, one of the most eminent Physicians in the Southern States, and who stands in the front rank of the philanthropists of our country, has written a dissertation on *Dyspepsia*, the great prevalence of which he attributes, in some degree, to the use of strong *imported Coffee*, and he says that in order to induce some of his patients to dispense with it, he has prevailed on them to substitute *Rye Coffee*, and that the free use of it has relieved them!—A letter from him to Mr. Skinner on the subject, was published in the American Farmer, last March or April; it is not at hand now, or I would send it to you. I hope however to see it soon published in your valuable paper.

The goodness of Domestic Coffee depends on its being properly prepared from sound *Rye*. I look upon the discovery and introduction of it, as very fortunate and of great importance to the country, as it lessens the expense of a very considerable item in house keeping, and at the same time is conducive to health. Its use therefore should not be discouraged till some better proofs can be adduced of its ill effects, than vague surmises and arguments, drawn from *Horses* and *Swine*.

A MIDDLESEX FARMER.

Mowing Match.—There was a famous mowing match in New Boston, on Saturday, August 17th, between Mr. Daniel Andrews, of New Boston, and Mr. Abel Hart, of Goffstown. The competition was who should mow an acre of meadow grass the quickest and best. The ground was staked out and the work performed in the presence of numerous spectators. Mr. Andrews completed his acre in one hour and twenty-six minutes. Mr. Hart, in one hour and twenty-eight and a half minutes. The victory was of course decided in favor of Mr. Andrews. *Amherst (N. H.) Cabinet*.

A safe, easy and cheap cure.—A broken winded horse had been kept in a field where there was not any water, except in the bottom of an old lime kiln, and had recovered his wind.—The owner ordered a stable shovel full of quick lime to be renewed every five or six days, and the water to be poured off, and a bucket of it to be given every day to a broken winded coach horse, aged eight years, which had almost a constant cough. The horse was supplied with water thus prepared for about five weeks, and kept in the stable. He is now perfectly recovered in his wind, and free from a cough.—*Conn. Journal*.

We have seen a twig broken from a pear tree (says the last Newburyport Herald,) this season, scarcely two feet long, which, when taken off, we are told contained upwards of 80 pears. On it was upwards of 60 hanging in clusters like grapes, and of a size as large as hen's eggs. It came from the town of Essex in this county.

FACTS AND OBSERVATIONS RELATING TO
AGRICULTURE & DOMESTIC ECONOMY.

MANURE.

It is a generally received opinion that in some soils of a loose texture, the fertilizing parts of manure escape by sinking beyond the reach of plants. The Hon. Timothy Pickering, in an Address to the Essex Agricultural Society, delivered May 5, 1818, made the following observations on this subject. Speaking of what is sometimes called *riddle land*, Mr. P. remarks:

"But is it true, that on such land, or on any land, the fertilizing parts of manure escape by sinking beyond the reach of plants? If they do, how happens it, that in lands which have been cultivated and manured for ages, every layer of earth below the cultivated soil is, nevertheless, found dead and barren? Is it not for this reason, that farmers in general cautiously avoid ploughing deeper than the soil, lest by stirring that dead earth, and mixing it with the soil, they should lessen its fertility? The result of a little experiment which I had made prior to our revolution then occurred to me. Its recital may in some other respects be useful.

"Within a stone's throw of my father's house, was a piece of sandy loam, which from its contiguity to the dwelling-place of himself and ancestors, for upwards of a hundred and thirty years, must have been kept, a large portion of that time, in tillage, and consequently have been often manured. Yet the colored soil was no more than five or six inches in depth. This soil I removed from one spot, with three or four inches of the earth next beneath it. Of the next, red earth, I then took up as much as measured a peck and a half. Dividing a long box into two equal portions by a board, into one I put a peck of the earth; and into the other a half peck, intimately mingled and incorporated with half a peck of clay—perfect clay to the touch; but it was taken from the edge of a clay-pit holding water, where cattle often drank, and a flock of geese bathed, during the summer. Hence the apparent clay was doubtless impregnated, in some degree, with the droppings from these animals. This box I placed, on the surface, in a garden. Adjacent to it, I sunk, to a level with the surface, a small earthen pot filled with the same sort of clay. In these three places I sowed turnip seed, as late as the 20th of August. In a few days I reduced the number of turnip plants in each to three. The pot of clay, even with the surface, received sufficient water from rains: but I regularly watered the parcels of earth in the box; bestowing equal quantities, and at the same times, on each division. Near the close of October, I carefully took up the turnips, and washed them, leaving upon them the fibrous roots and leaves. The three which had grown in the pot of clay weighed ten ounces—the bulbs hot to the taste, stringy and tough. The three from the dead red earth weighed only three ounces, and the bulbs were soft, spongy and insipid. But the three which had grown in the mingled red earth and clay weighed twenty-four ounces, and the bulbs were of good texture, and well flavored.

"From the facts above stated, I felt authorized to infer, that all the lost manure, (that is, all the parts not imbibed by the roots of plants, nor remaining in the soil) instead of *sinking* below the sphere of vegetation, *rose* into the atmosphere: and that "*riddle land*," (land on which

the effects of manure were not lasting) however highly manured, so soon lost its fertility, not by letting the essence of the manure *sink* speedily through it, but by its *incapacity to retain it against the power of evaporation.*"

From these, and other considerations, Mr. Pickering infers, "that manure arising from dung, and from all animal and vegetable substances, should be exposed as little as possible to the sun, the air and washing rains, and when applied to the soil, be immediately ploughed in. And further that the aim of the husbandman, possessing a soil from which the essence of his manure soon escapes, should be to add something which will render it more tenacious; like the soil which, in current language, is said 'to hold manure well.' For this purpose, nothing, probably, is equal to clay."

LIVE STOCK.

In observing on premiums given by Agricultural Societies for the best animals, Mr. Pickering observes:

"With great deference I would inquire, whether giving rewards for the *biggest* and the *fattest*, is the best mode of obtaining the *most valuable* breeds? Bakewell, the English celebrated breeder of cattle, sheep and swine, exercised his genius to produce such as were excellent in form, of sufficient size, which yielded the greatest quantity of meat on the most valuable joints, and would grow and fatten on the smallest quantities of food. In the fattening of cattle and sheep, there is a point to be attained, at which their flesh will be of the best quality, and most valuable to the consumer. Is not all beyond this a waste of time and expense in their keeping?"

INDIAN CORN.

Under this head Mr. Pickering remarks:—"The improving of our husbandry, in New England, is to be expected, not from a rejection of Indian corn as the ruin of our lands, but by a better management of that crop, in order to render it, as it appears it may be rendered, the best preparation for a crop of wheat, and other small grain.

"Every farmer knows how eagerly cattle devour the entire plant of Indian corn in its green state; and land in good condition will produce heavy crops of it. Some years ago, just when the ears were in the milk, I cut close to the ground the plants growing on a measured space, equal, as I judged, to the average product of the whole piece; and found that, at the same rate, an acre would yield twelve tons of green fodder; probably a richer and more nourishing food than any other known to the husbandman. And this quantity was the growth of less than four months. The ground was rich, and yielded, at harvest, upwards of fifty bushels of corn to the acre. The green stalks of our northern corn are incomparably sweeter than those of the southern states; at least when both sorts are grown in the north. Perhaps the greater and longer continued heats of the south may give a richness to the same large plants, which these cannot attain in the north. The stalks I have grown, rose to the height of 13 or 14 feet, and many of them weighed above five pounds. To support this height they are necessarily thick and woody in their fibres. My cows ate a small part of them

—reluctantly—while they would devour the stalks of our northern corn. It has appeared to me that the sort called *sweet corn*, (having a white shrivelled grain when ripe) yields stalks of richer juice than the common yellow corn. It is also more disposed to multiply suckers—an additional recommendation of it, when planted to be cut in its green state, for horses and cattle, and especially for milch cows; and its time of planting may be so regulated as to furnish a supply of food, just when the common pastures usually fail. I am inclined to doubt whether any other green food will afford butter of equal excellence."

FALLOW CROPS.

Mr. Pickering further observes, that, "The substituting of fallow-crops for naked fallows is one of the capital improvements in English husbandry. The naked fallows, formerly in universal practice, consisted in repeatedly plowing the land from spring to autumn—with two objects in view: one, the destruction of weeds, with which their lands became foul by repeatedly cropping them with small grain, as wheat, barley, oats, rye, in immediate succession; for the weeds springing up with these crops, and ripening their seeds, the soil, in three or four years, was so amply stocked, that some mode of extirpating the weeds became indispensable. But for many ages no other than naked fallows seem to have occurred. The English farmers now grow fallow crops, selected according to the nature of their soils; as beans, carrots, turnips, potatoes, mangel wurtzel, cabbages. While these are growing, they *fallow* the ground; that is, they stir it repeatedly with the plough or hoe, or both; by which they as effectually destroy the weeds as by the naked fallow; and at the same time benefit their crops, whose products reward them for their labor.

"Naked fallows seem also formerly to have been considered as the means of *enriching* as well as of cleaning the land. The error of their practice, in this view, cannot be better illustrated than by the following fact, communicated above 30 years ago to the Philadelphia Society of Agriculture, when I was a resident member, and which I well recollect. But to prevent circumstantial errors in the recital, I have turned to the Notes on Husbandry, by Mr. Bordley, (who was the vice-president of the society,) where the case is stated.

"A gentleman of Maryland (Mr. Singleton of Talbot) ploughed up part (and this was the richest part) of a clover field, in March, intending to plant it with tobacco. It happened, that the tobacco crop was omitted. So, this part was *fallowed*, that is, it was repeatedly ploughed in the summer, and on the first of September, sown with wheat. The residue of the clover field was twice mown. In August it was *once* ploughed, and on the same first of September sown with wheat. At harvest, the fallowed part of the field yielded only 1½ and a half bushels to the acre. The other part, besides two crops of clover hay the preceding year, now gave 2½ and a half bushels to the acre. This striking fact admits of an easy explanation, and in conformity with the principles already advanced. The repeated ploughing of the fallowed part of the field exposed the clover plants, roots and tops to the sun and air, by which they were dried up, and nearly annihilated; while other vegetable food in the

soil was also dissipated, or greatly reduced, by evaporation. But the clover, turned under by a single ploughing, was completely covered with earth, kept moist, gradually rotted, and so supplied food to the wheat plants most plentifully when most wanted, that is, in the ensuing season, when the wheat was attaining its complete growth, and ripening the grain."

IMPROVEMENT OF SOILS.

Soils may be improved by the admixture of earths to alter their texture. This is a distinct thing from applying the substances commonly called manures. A soil may be composed of materials so essentially unfriendly to vegetation that any attempt to manure it without altering its constitution, or correcting its noxious qualities, would be like feeding a sick man with nourishing things, without removing the cause of his disorder.

Sir John Sinclair says, "Soils with acids, or salts of iron, may be ameliorated by the application of earthy lime or chalk. The sulphate of iron (copperas) is thus converted into manure. If there be an excess of calcareous matter (lime or chalk,) it may be improved by the application of sand or clay, or earthy substances. Soils too abundant in sand, are benefitted by the use of clay, or marl, or vegetable matter. A deficiency of vegetable or animal matter must be supplied by manure. An excess of vegetable matter is to be removed by burning, or to be remedied by the application of earthy materials. The substances necessary for improving soils are seldom far distant. Coarse sand is often found immediately upon chalk, and perhaps always under it, while beds of sand and gravel are commonly below clay, and clay and marl generally below sand."

PRESERVING MEATS.

The following recipes are from Additions to Willich's Domestic Encyclopedia, by Thomas Cooper, Esq. Professor of Chemistry and Mineralogy.

"If meat be intended merely for family use, and to be used in two or three months, the following pickle deserves to be recommended: Water, one gallon; salt, nineteen ounces; salt petre, one ounce and a half; sugar, half pound.

"The Russians are fond of the flavor of juniper berries, and add a pound of bruised juniper to a gallon of pickle.

"A tea-spoonful or two of cayenne pepper to the gallon, greatly increases the preserving power of the pickle.

"To cure gammons, first sprinkle them as soon as they are cut and trimmed, with a little (Liverpool) salt. Let them lay together for twelve hours: take them out of the tub, drain and wipe them; then rub them separately with a mixture of twelve parts common salt and one part salt petre, well dried and then ground fine. Rub in this mixture well; lay them in the pickling tub, and the next day rub them again with a similar mixture. The day after fill up the tub with a brine made in the proportion of 18 oz. salt, 1 lb. molasses, and 1 oz. salt petre, to the gallon of water. In this pickle they may stay for a fortnight. Then take them out, drain, wipe and smoke them.

"If they are suffered to make their own brine by means of dry salt and salt petre entirely, they will lose too much of the juices of the meat, and become hard and dry.

"I have successfully cured beef in summer thus:

"I killed an ox in the middle of August, at 9 o'clock in the evening; it was cut up at 3 o'clock in the morning. The pieces were quickly rubbed with a mixture of ten parts of salt, and one part of salt petre, and put into a barrel. In the mean time a brine composed of 1 1-2 lbs. of salt, 2 oz. of salt petre, and half an ounce of common pepper, to the gallon of water, was ready over the fire, and when the beef was all packed in the barrel, it was poured on boiling hot. This prevented and destroyed all fly-blows. In a week, the pieces were taken out, drained and wiped; the pickle was boiled over again, scummed, and again poured boiling hot on the meat when re-packed. The process answered the purpose perfectly."

A METHOD OF PRESERVING CREAM.

Take twelve ounces of white sugar, and as many grains of finely powdered magnesia, and dissolve them in a small quantity of water, over a moderate fire. After the solution has taken place, 12 oz. of new cream should be immediately added, and the whole uniformly mixed while hot. Let it then gradually cool, and pour it into a bottle, which must be carefully corked. If kept in a cool place, and not exposed to the air, it may be preserved in a sweet state for several weeks, and even months.

Domestic Encyclopedia.

TO PREVENT BOTTLED CIDER FROM BURSTING.

Make a strong frame of plank, say 1 1-2 or 2 inches thick and 9 deep, by locking it together edge-wise, place it in the cellar, and sit the bottles of cider in it, (after being well corked) as close as possible, until it is entirely filled, except the space for one bottle, which must be left to commence taking them from, when wanted for use. Then put clean sand on them, and settle it between the bottles, by throwing on alternately water and sand, until the sand is well settled half way up the neck of the bottles. In that situation the bottles will be preserved, filled with the very best cider for any length of time.

By placing ice on the sand over the quantity of bottles proposed to be used a day, it will be as if put into ice water.—*American Farmer.*

TO PREVENT SKIPPERS IN BACON.

Take of red pepper finely powdered one table spoonful for every joint of meat, and rub it on the meat with the salt, when it is first cut up. It has been often tried, and was never known to fail in producing the above effect.—*ib.*

EXTIRPATING RATS AND MICE.

Lay bird lime in their haunts; for though they are nasty enough in other respects, yet being very curious of their fur, if it is but daubed with this stuff, it is so troublesome to them, that they will even scratch their skins from off their own backs to get it off; and will never abide in the place where they have suffered in this manner.—*Farmer's Journal.*

Quere.—Would tar answer the same purpose as bird lime?

From the Providence Journal.

To those who make, and those who love good Cider.

A few years ago, I was dining with a friend, who knew my fondness for cider with my food.

He remarked, "my friend, I have no cider to offer you. Our apples have been principally cut off by frosts and insects, for several years past; but I can give you some cider wine." I took some of it, and diluted it with water, sufficient as I calculated, to reduce it to the strength of late made cider. When I drank of it, to my surprise, I found I had a glass of very excellent cider, with only the taste of a little apple brandy in it. The discovery of this fact suggested to my mind the following conclusion:—That farmers in a plentiful year of apples, may, with a little care, lay up a supply of good cider, against a year of scarcity. This may be done within a small compass, in the following manner:—Take your first made cider, which is fit only for the still, and convert it into brandy; put nine gallons of this brandy into a new barrel; then fill the barrel with late made cider, well strained, and bung it tight. This gives you the strength of near four barrels of cider, in one. The strength given to it by the brandy, will preserve its sweetness entire, for many years. That which I drank was ten or twelve years old; and it was not impaired by age. When it is used, it only requires a sufficient quantity of water mixed with it, to render it excellent cider. The barrels should be new, and clean. To guard against the rotting which is caused by damp cellars, they should be iron bound, and well painted. In this manner, any farmer, who has the fruit, may put up, in six barrels, the essence of twenty barrels of good cider, and keep it until a time of need. It will *fine* itself; and will grow better with an increase of age. Besides, if it is not wanted as cider, it is a very pleasant cordial, when *undiluted*; and, with the addition of a bushel of wild grapes, bruised, and put into each barrel, it imbibes the peculiar flavor of the grape, and becomes a very pleasant wine.

As there is an unusual quantity of apples this year, I have thought this communication might be useful to agriculturists. Now is the time for grinding up the early windfalls; and the cider, which these produce, if distilled, will furnish the brandy necessary for making the cider wine. And I can assure you, my friends, prepared in this way, it is much pleasanter, and less injurious to health and morals, than when drank, in the usual manner, mixed with water.

Those farmers who are fond of good cider with their food, and who have felt the want of it, in consequence of a scarcity of apples, will, I trust, feel the importance of attending to this subject, now, when they are blessed with an abundance of fruit. And another season, when their neighbors are destitute, the possession of a plenty of excellent cider in their cellars, will more fully realize to them the value of this communication, if they will make the experiment.

A. B.

A correspondent states that the medical qualities of pulverized Charcoal, are daily developing themselves. In addition to its value in *bilious* disorders, two ounces of the Charcoal boiled in a pint of fresh milk, may be taken in doses of a wine glass full, by adults, every two hours, in the most obstinate *dysentery*, until relief is imparted, which has not failed to be the effect in almost every instance. It is harmless and the experiment may be safely tried. Charcoal made from maple wood is the purest that can be readily obtained.—*Baltimore Chronicle.*

From the Floridian.

NATIVE NUT GALLS.

Messrs. Editors,

It may perhaps be gratifying to your readers to learn, that among the abundant vegetable productions of West Florida, the *Quercus Cerris* or Oriental Oak stands in the first class. It owes its importance principally to the production of Nut Galls. They have hitherto been imported from the Mediterranean at a great expense, and their importance in manufactures is well known. They are the production of an insect of an *hymenopterous* species. The *Cynops Quercifolia*, who deposit their eggs on the leaves and tender branches of the tree; an excrescence is soon formed around the egg, which enlarges to a ball the size of a bullet, enclosing the egg; which in process of time is hatched, and the embryo often undergoing several changes, finally eats its way out of its prison. This excrescence is the Nut Gall; and those found in Florida are equal in every respect to those imported from the Levant.

This tree seldom attains the height of ten feet, and grows principally in low and wet situations, and the galls cover the branches in great profusion. The writer of this gathered in the space of a few moments several pounds. When it is taken into consideration the importance of this production in Dying and Medicine, their present high price (from 50 to \$60 per cwt.) and their not being indigenous in any other part of the U. S. we know of nothing that would so well repay the enterprize of any of our citizens, as collecting and sending them to the northward for sale.

A Friend to Domestic Industry.

From the Amherst (N. H.) Cabinet.

The Committee of the Hillsborough Agricultural Society appointed to view the field products of competitors, performed the duty assigned them in the present week, agreeably to the new regulation of the Society, substituted in the place of the greatest crops, viz. "The premiums are to be awarded by a viewing committee from actual inspection of the crops growing in the fields, and they will take into consideration not only the crops, but the soil, situation, former and present method and expense of culture, and the general husbandry of the farm." The gentlemen composing the committee who attended to the duty of their appointment, were Rev. H. Moore, P. Woodbury, Esq. Capt. Wm. Riddle, Capt. E. Abbot, Joseph Cochran, Esq. Mr. Phillip Brown, and Mr. Porter Kimball. This committee appears to have been judiciously chosen; being all men of practical farming knowledge. They passed through this and the neighboring towns on Wednesday, and were accompanied by a number of gentlemen in viewing the farms entered for competition. They proceeded in their business with precision and expedition, and evinced judgment and skill suited to the undertaking. The committee expressed themselves highly pleased with their employment, and the highest encomiums on the reception and generous treatment they every where met with on their tour of observation—the people generally appearing greatly pleased with the change of the system of granting premiums on agricultural products. The committee entertain no doubt that premiums awarded in this manner will produce the happiest results. It is hoped that this ex-

periment will excite the farmers of the county to a lively sense of the importance of promoting the general interests of the Society as immediately connected with their own and the general welfare of the community—That hereafter the Society may be enabled to offer premiums for the best managed farms, taking into consideration the soil and situation, the ability of the owner to make improvements, and the system on which he manages—and that the competitors may be greatly increased.

NEW ENGLAND FARMER.

BOSTON.—SATURDAY, AUGUST 31, 1822.

We would beg leave to direct the attention of our readers to the piece with which this day's paper commences, which we think rational, philosophical, and calculated to be useful. Future favors of a similar nature from the same hand are respectfully solicited.

COOKING FOOD FOR CATTLE.

(Concluded from page 31.)

In the construction and management of "root steamers," (as they are called by the Complete Grazier,) there are some things worth attention, which we have yet to notice. "If water be heated in a close vessel no steam will be formed; if the steam escape by a small hole there will be less formed than if the whole surface of the water were uncovered."* It follows that, other things being equal, shallow vessels, or vessels about half full, exposing large surfaces of the water in proportion to its quantity, from which the steam may ascend, will afford the most steam with a given quantity of heat applied.

Allowing that one gallon of water will produce 1200 gallons of steam, it would be easy to calculate the exact quantity of water necessary to boil in order to fill with steam the vessels in which the food is cooked, were it not that the following circumstances are to be taken into consideration. Steam will be condensed with greater or less rapidity in proportion to the temperature of the atmosphere, and the temperature, the solidity, the dryness or wetness of the feed which it operates upon. Besides if the whole apparatus is made perfectly tight, a *safety valve* will become necessary, through which some of the steam will make its escape; and the exact quantity of the fugitive steam cannot be calculated. If the vessel in which the food is prepared is either open at top (as is common when a five pail kettle and a hog'shead placed over it is used,) or is covered only by a thick coarse cloth (as recommended by the Complete Grazier,) a considerable quantity of steam will be wasted. But though, perhaps, no precise data can be given for generating or graduating the exact quantity of steam necessary for given purposes, as relates to cooking food for cattle, we believe there is commonly more water boiled, and of course more fuel used in steaming *solid* food than is necessary. Accurate experiments on this subject, and their results carefully recorded, would undoubtedly prove useful.

Steam may likewise be very profitably used in preparing *liquid* messes for cattle, as well as in warming vats for dyers, tanners, paper-makers, &c. &c. Many attempts have been made to heat liquids by steam introduced into them, which have generally failed, in consequence of its not being known, or not adverted to by those who have attempted the process, that fluids are *non-conductors of heat*, and consequently that heat cannot be made to *descend* in them. It is therefore necessary that the tube, which conveys the hot steam,

* Nicholson's Chemistry.

should open into the *lowest part* of the vessel, which contains the liquid to be heated. We shall abridge from Count Rumford's Essays such directions as will enable any workman of ordinary sagacity to effect this purpose.

To succeed in heating liquids by steam, it is necessary, not only that the steam should enter the liquid at the bottom of the vessel which contains it, but also that it should enter *coming from above*. The steam tube should be in a vertical position, and the steam should *descend* through it previous to its entering the vessel, and mixing with the liquid which it is to heat; otherwise this liquid will be in danger of being forced back into the boiler by this opening; for the hot steam being suddenly condensed on coming into contact with the cold liquid, a vacuum will necessarily be formed in the end of the tube; into which vacuum, the liquid in the vessel, pressed by the whole weight of the incumbent atmosphere, will rush with great force, and with a loud noise; but if this tube be placed in a vertical position, and if it be made to rise to the height of six or seven feet, the liquid, which is thus forced into its lower end will not have time to rise to that height before it is met by steam and obliged to return back into the vessel. There will be no difficulty in arranging the apparatus in such a manner as effectually to prevent the liquid to be heated from being forced back into the steam-boiler; and when this is done, and some other necessary precautions to prevent accidents are taken, steam may be employed with great advantage for heating liquids; and for keeping them hot, in a variety of cases, in which fire, applied immediately to the bottoms of the containing vessels is now used. The boilers intended to be heated in this manner may be placed in any part of a room, at any distance from the fire, and in situations in which they may be approached freely on every side. They may be surrounded with wood, or constructed entirely with wood. The tubes by which the steam is brought from the principal boiler (which tubes may be conveniently suspended just below the ceiling of the room) may in like manner, be covered, so as almost entirely to prevent all loss of heat by the surfaces of them; and this to whatever distance they may be made to extend.

In suspending these steam tubes, care must, however, be taken to lay them in a situation *not perfectly horizontal* under the ceiling, but to incline them a small angle, making them rise gradually from their junction with the top of a large vertical steam-tube, connecting them with the steam boiler, quite to their furthest extremities; for, when these tubes are so placed, it is evident that all the water formed in them, in consequence of the condensation of the steam in its passage through them, will run backwards, and fall into the boiler, instead of accumulating in them, and obstructing the passage of the steam, which it would not fail to do were there any considerable bends or wavings, upwards and downwards, in these tubes, or of running forward and descending with steam into the vessels containing the liquids to be heated, which would happen if the tubes inclined *downwards*, instead of inclining upwards, as they recede from the boiler.

The steam tube may either descend within the vessel to which it belongs or on the outside of it, as shall be found most convenient. If it comes down on the outside of the vessel, it must enter it at its bottom, by a short horizontal bend; and its junction with the bottom of the vessel must be well secured to prevent leakage.

When several steam tubes, belonging to different containing vessels, are connected with the same horizontal steam conductor, the upper end of each of these tubes, instead of being simply attached by soldering

to the under side of the conductor, must enter at least one inch within the cavity of it; otherwise the water resulting from a condensation of a part of the steam, in the conductor by the cold air which surrounds it, instead of finding its way back into the steam boiler, will descend through the steam tubes, and mix with the liquids in the vessels below; but when the open ends of these tubes project upwards within the steam conductor, though it be but to a small height above the level of its under side, it is evident that this accident cannot happen. In order that the ends of the steam tubes may project upwards within the horizontal conductor, the diameters of the former must be considerably less than the diameter of the latter.

As it is essential that the steam employed in heating liquids, in the manner before described, should enter the containing vessel at, or very near its bottom, it is evident that this steam must be sufficiently strong or elastic to overcome, not only the pressure of the atmosphere, but also the additional pressure of the superincumbent liquid in the vessel; the steam boiler, must, therefore, be made strong enough to confine the steam, when its elasticity is so much increased by means of additional heat, as to enable it to overcome that resistance. This increase of the elastic force of the steam need not, however, in any case, exceed a pressure of five or six pounds upon a square inch of the boiler, or one third part, or one half, of an atmosphere.

In this and in all other cases, where steam is used as a vehicle for conveying heat from one place to another it is indispensably necessary to provide *safety valves* of two kinds; the one for letting a part of the steam escape, when, on the fire being suddenly increased, the steam becomes so strong as to expose the boiler to the danger of being burst by it;—the other for admitting air into the boiler, when, in consequence of the diminution of the heat, the steam in the boiler is condensed, and a vacuum is formed in it; and when, without this valve there would be danger, either of having the sides of the boiler crushed, and forced inwards by the pressure of the atmosphere, or of having the liquid in the containing vessels forced upwards into the horizontal steam conductors, and from thence into the steam boiler.

Count Rumford proceeds to shew that the principles above described had been carried into effect upon a very large scale, by Messrs. Gott and Company, at Leeds.

The dyeing house of Messrs. Gott and Company is very spacious, and contains a great number of coppers of different sizes, some of which contain upward of 1800 gallons, and they are all heated by steam from one steam boiler. One of the largest of these coppers, containing upwards of 1800 gallons, when filled with cold water from the cistern, requires no more than *half an hour* to heat it till it actually boils! By the greatest fire that could be made under such a copper, with coals, it would hardly be possible to make it boil in less than an hour. Common wooden tubs may be substituted for coppers, for retaining vessels, or vessels in which the food is cooked.

The foregoing may give our readers some idea of the mode of heating liquids by steam. Those, however, who would wish to construct an apparatus for boiling liquids by steam, would do well to consult Count Rumford's Essays, which may be found in the Boston Athenaeum.

We would here observe that what we have recommended and in part described in this essay does not rest on theory, nor speculations not tested and warranted by actual and beneficial practice. This we endeavored to shew in the beginning of our essay. (p. 23) and to make it still more evident, we shall add to this

article a few facts derived chiefly from Mr. Smith's Address to the Maryland Agricultural Society.

Mr. William Bean, of the city of Baltimore, the constructor of my apparatus, has stated to me that he can build such as mine at a cost from 60 to 200 dollars. A boiler of the lowest price, containing 20 gallons, would be sufficient to cook food for the stock of most farms in our country. The capacity of my boiler is 100 gallons. It has enabled my people for some time to cook every day, for more than one hundred head of stock, nourishing food, consisting of cut hay or straw, or corn tops and blades, or corn husks mixed with meal produced from the corn and cob ground together, or with other meal and a due proportion of water. When this food is intended for cows in milk, as much water is used as will serve to give it the liquid consistence of what is called a wash; but when it is prepared for dry cattle or for horses, so much water only is applied as is used in the common feed of chopped rye and cut straw.

Clover hay, corn tops, blades and husks, when steamed, have been found greatly to contribute in the winter season to the improvement of the quality of the milk, inasmuch as, in a great degree, to impart to the butter the yellow color and delicate flavor, it would have received from the same articles in a green state. It is, however, proper to premise, that to produce these pleasing effects, the clover hay and the corn fodder must be well cured. When cut straw has been used, the advantages, though very perceptible, have not, from the dryness of the straw, been so strongly communicated to the butter. If the steamed food should not be intended for cows in milk, or for cattle for the butchers, or for working oxen or horses, but for stock going at large, there is no necessity to mix it with any meal whatever. And from the experience I have had I have no hesitation in pronouncing that not only straw and corn fodder, but the very corn stalks, instead of "wasting their sweets on the desert air," may, if well cured and preserved, be converted into nourishing food for the maintenance of stock throughout the whole winter season."

"The richness of the milk, the flavor and yellow color of the butter, afford the most convincing evidence of the excellency of cooked food. And this is confirmed by experiments made from time to time, in suspending and resuming the steamed preparations. Besides, under this system, every particle of the hay, of the straw, and of the coarsest offal is consumed. There is no waste; every thing is eaten with avidity. It would hence appear that the steaming apparatus, converting as it does all vegetable matter whatever, coarse as well as fine, into the greatest quantity of nutriment, affords the united benefits of nutrition and economy. And in this country, where so little green food is raised for the maintenance of cattle in the winter, the steaming of straw and corn fodder combines incalculable advantages. Besides, it should ever be kept in mind that, in the feeding of animals, the provender ought to have bulk as well as nutriment. A certain distention of the stomach is requisite."

NEWS FROM EUROPE.

London papers to the 19th July have been received by the Herald, Capt. Fox, from Liverpool. By these it appears that Madrid was in extreme agitation from the 1st to the 5th of July. On the 6th at night, one of the battalions of the revolted troops made a forceable entry into the city. They entered the avenues leading to the square at day light, and commenced a vigorous fire on the constitutional troops, or militia. The latter defended themselves successfully. At six in the morning, Gen. Morillo ordered a piece of artillery to be placed in the main street to prevent the retreat of the guards in that direction, the militia continued to fire upon them, and the mutineers, being repulsed on every side, withdrew to the palace, where they were received and welcomed by some persons of rank. They then offered to enter into negotiations, but notwithstanding their offer, subsequently attacked some of the militia, but were again repulsed. Some other events took place, whose details are of little importance. On the 8th, all the remaining mutineers surrendered, and the Bishop, in presence of the militia, performed a solemn mass in honor of the triumph.

A Paris paper of the 15th ult. states that "a meeting of the Foreign Ministers has been held at Madrid,

to sign a declaration relative to the events in that capital. Mr. Forsyth, the American minister, refused to sign it, as totally untrue; asserting that the loyal adherents to Ferdinand were his greatest enemies, and that the Cortes, Riego, &c. were his best friends. It is added that eventually all the foreign ministers, except the Austrian, agreed with Mr. Forsyth.

LONDON, July 19.—*Important*.—Extract of a private letter received this morning from Paris, dated Monday evening last:—"The French government have just concluded a contract for 10,000 horses for the artillery, &c. All the different officers have been ordered to their posts, and the conscripts of the year 1821 are ordered to join the army. If this does not look like war, I don't know what does."

Mermaid.—The British Missionary Society in London have published an official account of the arrival of a *Mermaid*, at the Cape of Good Hope, and given a full description of her, and state that the proprietor of the extraordinary animal is Capt. Pdes, of Boston, in America; who had been offered 10,000 dollars for it, but refused to part with it for any sum.

STILL LATER.—Since writing the above, London papers have been received by an arrival at this port, as late as the 25th ult. Accounts from Madrid are to July 12. The insurrection of the Guards is entirely suppressed—the late minister of war deprived of his functions. Disturbances, however, continue to exist in some of the Northern provinces of Spain. It was said that the Constitutionalists had gained a victory in Catalonia. The insurgents fled to the mountains, where large bodies of them collect, and make occasional predatory descents on the neighboring cities.

A petition has been presented to the British Parliament from certain persons in Leeds, praying for the interference of the House in the massacres of the Greeks by the Turks. The petition was ordered to be printed.

HARVARD UNIVERSITY.

The annual commencement at this ancient seminary took place on Wednesday. His Excellency the Governor, with the other State Authorities, was escorted from this city to Cambridge, in the morning, by the corps of Cavalry under Capt. Richardson. A procession was then formed, consisting of the Government of the University, and their invited guests, which proceeded to the meeting-house, where the literary exercises commenced at half past ten o'clock, to a very crowded and discriminating audience. Among other distinguished persons, we were gratified to see the Rev. President Holley, of the Transylvania College, of the audience on this interesting occasion. After the usual exercises, the Government, with their guests, the Alumni of this and other similar institutions, repaired to the Hall, partook of a generous repast, and concluded the day with their accustomed festivity.

The degree of A. B. was conferred on fifty-nine young gentlemen.—*Gazette*.

New York, August 27.

Although the last reports of the Board of Health are not of a nature to create new alarm, yet the panic still continues, and is extending in the lower part of the city. This is however, natural. The alarm is more contagious than the fever; the stoutest heart is appalled by seeing his neighbors fleeing from their abodes, and the only relief is to follow them. Broadway, and the other great Avenues to the upper part of the town and Greenwich, exhibited yesterday a continued throng of carts, laden with merchandize from the warehouses below. It has already become a scene of bustle and business at the new locations.

The Banks began to move yesterday morning, and we understand, are all now established at Greenwich and Broadway, excepting the Manhattan, which is at their building in the Bowery, near the junction of Broadway. This is a great calamity to New York, but it is hoped, will be borne with fortitude.

On the 24th inst. the President issued his Proclamation opening the ports of the United States to British vessels from ALL the British Colonial Ports at which our vessels are admitted—and on reciprocal conditions, as regards the vessels, proportion of mariners, and nature of the cargo.—*Palladium*.

FOR THE NEW ENGLAND FARMER.

THE RICH MAN AND THE POOR BOY.

A certain lad, who was a wag complete
Whom even a yankee pedlar could not cheat,
Full of finesse, and paltry cunning tricks,
As rogues who shine in party politics,
Once met a coxcomb with less brains than cash,
Who therefore undertook to cut a dash
By dint of money, having nought beside
To form the underpinning of his pride.
"May't please your honor, sir," the urchin said,
"Give me two cents to buy some ginger-bread."
"I give you cents!—you little vile clod-hopper,
"Two kicks I'll give you, sooner than one copper.
"Give you two cents!—that would indeed be funny,
"You stand in need of *manners* more than *money*."
"Sir," said the lad, "I ask your honor's pardon.
"My case you must acknowledge is a hard one;
"For neither cash nor manners *I* can boast of,
"I therefore ask'd for what *you* had the most of."

FOR THE NEW ENGLAND FARMER.

THE SCHOLAR WHO LOST HIS KEY-HOLE.

A scholar, once, who had been drinking till he
Was quite impertinent and somewhat silly,
Came reeling home 'twixt twelve and one at night,
Fumbling his way to bed without a light,
But bellows out as loud as he could roar,
"Some rogue has stol'n the key-hole to my door!"

From the American Daily Advertiser.

Extract of a letter from an American gentleman in Smyrna, dated 27th May last, to his friend in Philadelphia.

"Our situation in this country continues to be very distressing, and our future prospects most uncertain. Notwithstanding the strong hopes that now exist, that a war with Russia will not take place, I must confess, I cannot much flatter myself with that hope. The Turks, by their conduct, will force Russia, if not eventually all the Christian powers, to declare war against them. The Island of Scio, containing a population of about one hundred and fifty thousand, has been taken by the Turks. This island was by far the richest of any of the Archipelago. The Turks, on their appearance, held out promises of pardon; they met with scarcely any resistance, still all the men have been killed, and the women and children made slaves, and daily pass through this place, on their way to different parts of Asia. To behold a young lady of respectable family, brought up in all the ease of affluence, a slave to some Turkish Boor, is most distressing. Other scenes, far worse, we are obliged to see and hear of daily. Strict orders are given to prevent any of these slaves from being sold to any Christian; still, however, a few, very few, are saved in this way, at a great expense.

"The Turkish fleet and the Greeks are now in presence of each other; the force of the latter is very inferior to the former, still they do not venture to attack them. The Greeks wait to find them at anchor, with the hopes of burning them; should they succeed, we may expect great disturbances here."

About 60 blacks were convicted at Charleston, for being concerned in the late conspiracy, 34 of whom were executed, and the rest sentenced to be transported.

From the Baltimore Patriot of August 14.

DROUGHT.

The northern and western parts of Maryland, and the adjacent parts of Pennsylvania, have suffered from a drought this season to a degree, unprecedented within the memory of the oldest persons living. In York, (Penn.) no rains of consequence had taken place on the 13th inst. from the preceding 21st of February, the time of the fresh—and for the last two months, there had not been a shower. Not one mill out of ten could grind at all, and the few that could, were not able to supply the demand. Farmers have been obliged to go twenty miles, to get as much ground as would support their families. The York paper seriously states, that a few weeks more of dry weather, would compel the inhabitants to resort to Baltimore for flour!! The summer crops have almost altogether failed.—"Some fields will not yield a grain of Corn, and the best of them not more than a few bushels to the acre." Verbal reports and letters confirm these statements, and in fact, give even more gloomy views of the state of the crops and the streams in the adjacent part of our state.

The York Gazette says, "we hear daily of springs that were considered never-failing, disappearing, and the people, like the thirsty throng of Israel, have to go miles in quest of water to sustain themselves."

Although nothing like the distress alluded to, has been experienced in Baltimore and its vicinity, the season has been of late very dry. Yesterday the dried plains received partial refreshment from timely showers, which have caused a perceptible difference in the atmosphere.

From a Philadelphia Paper of August 17.

We were yesterday highly gratified with the sight of a man walking on the water by the help of the *life preserver*. He jumped boldly into the middle of the Delaware, and made his way against the tide with apparently but little exertion. The length of time which it took to put on and adjust the dress, struck most of those present as a serious objection, but we learn that this inconvenience will be remedied in a new dress which the inventor is now preparing; and we have no doubt that the invention may prove useful in cases of shipwreck near land, where, not unfrequently, if only one can escape to shore, means may be obtained of saving the whole crew.

President ADAMS has recently given in immediate possession to his native town, Quincy, nearly two hundred acres of land, containing in a part of it an inexhaustible quarry of stone for building houses; the whole proceeds to be appropriated to religious and literary purposes from generation to generation. He has also given to the town his whole library consisting of highly valuable books, in various languages. This has already come into possession of the town.

Portsmouth Journal.

An eminent Physician, who was acquainted with the dangerous effects of Lead on the human constitution, recommended those who received their supply of water through *Lead Pipes*, to have the water which had been standing in the pipes through the night, drawn off every morning, before they draw for the use of their families.

CHOICE OF A WIFE.

As notwithstanding all that wit, or malice, or pride, or prudence, will be able to suggest, men and women must at last pass their lives together; I have never, therefore, thought those writers friends to human happiness, who endeavor to excite in either sex a general contempt or suspicion of the other. To persuade those who are entering the world, and looking all abroad for a suitable associate, that all are equally vicious, or equally ridiculous; that they who trust are certainly betrayed, and they who esteem are always disappointed, is not to awaken judgment, but to inflame temerity. Without hope there can be no caution. Those who are convinced that no reason for preference can be found, will never harass their thoughts with doubt and deliberation; they will resolve, since they are doomed to misery, that no needless anxiety shall disturb their quiet, they will plunge at hazard into the crowd, and snatch the first hand that shall be held towards them. That the world is over-run with vice cannot be denied; but vice, however predominant, has not yet gained unlimited dominion. Therefore, those who undertake to initiate the young and ignorant in the knowledge of life, should be careful to inculcate the possibility of virtue and happiness, and to encourage endeavors by prospects of success.—*Johnson.*

There is a dear and precious period in the life of man, which, brief as sweet, is best appreciated in recollection; when but to exist is to enjoy; when the rapid pulse throbs wildly with the vague delight which fills the careless heart, and when it may be truly said, that nothing is, but what is not.

There is not the greatest man living but may stand in need of the meanest, as much as the meanest does of him.

When the heart is deeply involved, every sense allies itself to its feelings, and the eye beholds no object, and the ear receives no sound, which, in the first impression, awakens not the master pulse of emotion.

Relations take the greatest liberties, and give the least assistance. If a stranger cannot help us with his purse, he will not insult us with his comments; but with relations, it mostly happens, that they are the veriest misers with regard to their property, but perfect prodigals in the article of advice.

PRONUNCIATION.

Sir David Dundas spoke in Parliament with a broad Scotch accent. "I say, Mr. Speaker," said he upon one occasion, "it is not in the poor [power] of this house to do so." "What," said a country member, "does the advocate of Scotland mean by talking of the poor of this house?" "He means, I suppose," said Mr. F., "the forty-five Scotch members."

A person having asked his physician how much daily food was required to nourish and support the body, the physician replied, "One pound of food will support man; should he take more, the man must support the food."

NEW ENGLAND FARMER.

Published every Saturday, by THOMAS W. SHEPARD, Rogers' Building, Congress Street, Boston; at \$2.50 per ann. in advance, or \$3.00 at the close of the year.

VOL. I.

BOSTON, SATURDAY, SEPTEMBER 7, 1822.

No. 6.

At the suggestion of a friend, but in perfect accordance with our own views, we this day commence the re-publication of the following pamphlet, which we shall continue, from time to time, till completed. Although not designed particularly for this section of the Union, it is, for the most part, as well adapted to New England as to New York; and we think its contents cannot fail to be interesting to that class in the community, who have most leisure to read, and may be expected to derive most profit from reading. Writings like the following have a tendency to make the most useful pursuits the most fashionable, and may perhaps turn the attention of many young men of family and fortune to almost the only honorable vocation, which is not already thronged and crowded to a degree which leaves but little chance of success to new competitors.

Considerations on the necessity of establishing an Agricultural College, and having more of the children of wealthy citizens educated for the profession of farming. Albany: Websters & Skinners, pp. 42.

The purpose of the following observations is to recommend an institution for the education of agriculturists, or, in more familiar language, to teach the business of farming.

The necessity of such an institution is the first thing that will be required to be shewn before advocates for it can be expected, and this I think will appear in a convincing manner from the following considerations.

There are now thousands of wealthy citizens in this state who do not know what to do with their sons. In the first place, without any determinate object in view, they give them a liberal education, or rather, they send them for four years to a college to obtain the reputation of having a graduate's diploma, and so much instruction in the dead languages and the ordinary sciences as they are compelled or disposed to attend to; after that there are only three professions from which ordinarily they are to choose their means of living and rising into consequence—law, physic and divinity; but so great are the numbers of young gentlemen destined for those professions, that their prospects are truly dismal; but what other provision can their fathers make for them? Turn them to some mechanic employment? that is considered too degrading—To manufacturing? it has been tried and proved ruinous—To mercantile business? that too is overstocked—To the army or navy? there is little room there, and many reasons against it—To farming? nothing, it is said, can be made by it.

In most European countries, the manufacturing department affords a vast opening for respectable enterprise, and gives employment to millions. Its business can scarcely be overdone. It is found some of the most important and influential men of the nation to which they belong. In respectability, wealth and usefulness, even in other departments excel them. Hitherto, without offence to the most fastidious pride, may the offspring of families of every rank be directed for employment. To us this department may in some sense be said to be absolutely shut, a circumstance which most ma-

terially narrows the field of profitable and honorable pursuit. With us so few are the channels of what is esteemed exclusively reputable business, by the proud classes of society, that a multitude, too great for their capacities, rushes into them at once. Happily for the agricultural department, it has, among all the capricious and absurd modifications and revolutions of nations, remained exempt from dishonorable imputation; but still it is guarded by a terrific phantom, which threatens obscurity and poverty to those who shall attempt to enter it, still repeating, that *by farming nothing is to be made.*

That nothing is to be made by farming, however, is an opinion easy to be refuted, and that will presently be done; in the mean while, some further preliminary observations are to be made.

There are no entailed estates in our country; and there are very few, however enormous, that may not be dissipated by the immediate descendants of those who have acquired them. It may therefore be said, with little qualification, that every person, whatever may be his patrimony, must calculate on being the arbiter of his own fortune. As many young men are now brought up in opulent families, the inevitable consequence will be that they, excepting such as may fortunately escape the effects of their education, must eventually sink out of sight from the respectable part of the community. In the mean time the descendants of the industrious mechanics, following the lessons and examples of their fathers, together with those extraordinary geniuses, that not unfrequently rise from the mansions of obscurity, will by their native powers and unshakable energies, mount to the highest eminences, command the wealth, and rule the destinies of their country. It is melancholy to look back and see how many families of high repute, have, merely by fostering a despicable, inert, family pride, and disdaining such occupations for their children as were only suited to their talents, and abandoning them to their wayward inclinations, become exterminated from the ranks in which they formerly stood. And it is pitiable, truly pitiable, to see, as any one in every section of the country may see, by looking not far about him, a family raised to opulence and character by the genius, enterprise and industry of its head, exhibiting, from the same cause, sure and dismal presages of its speedily submerging far below the level of its present stand in society.—Who cannot point to some such in which not one of its branches can be selected with the least prospect of a surviving reputation distinguished from that of the common mass of mankind, after the head of it shall have ceased to uphold it? And how is this to be accounted for? By that same pernicious pride and most culpable tenderness, which forbid persons, elevated by their circumstances but a little above the common level, to subject their children to that severe discipline which is indispensably necessary to prepare them for such callings, no matter which, as are indicated by their capacities and the natural bent of their dispositions. Such persons do to their sons the office of the angel of paradise, in guarding, a-

gainst their entrance, the only place where happiness for them is to be found. Nor can it escape observation, that to the neglect of early and systematic religious and moral instruction, can evidently be traced the annihilation of families once holding conspicuous stations in the community.

It may here be proper also to make some remarks on the notion which is generally entertained of the hardships, sometimes called cruelties, of discipline. The discipline of young persons is nothing more than compelling them to do what they ought to do, and must do, to escape a comparatively ignominious life, but what they are naturally unwilling to do, and by proper means to impress on them the habit of doing it. This in the operation may not be pleasant to the patient, but the habit once induced will become the source of his greatest enjoyments. As some confirmation of the truth of this remark, I have heard persons, who had in their earlier age passed through a course of the severest discipline, animadvert on it with the highest satisfaction; and with recollections of gratitude to their, once considered cruel, masters, ascribe to it all the consequence they had acquired in life. On the contrary, I have heard bitter upbraidings from those who have in after life woefully experienced the effect of its not having been enforced by those who had the control of them in the days of their infancy and youth.

I believe every reader of this will, from his own experience, be ready to testify to the justness of this remark. For myself I can truly say, that there is no hardship which I have suffered to prepare me for the duties of life, nor any which I have endured in the prosecution of them, which I now regret. If I have any one thing more than others to regret, in my recollections of the past, it is, that stronger injunctions have not been enforced, or that a greater self-control, and a course of more scrupulous and assiduous performance of duties have not been assumed. The pains of additional labor would have been abundantly compensated by the feelings of self-applause, which a retrospection would afford, and the satisfaction yielded by a consciousness of powers better matured for actions more extensively useful.

On this topic I will make one other remark which, as to its importance and truth, I recommend to the serious and deliberate consideration of those wealthy parents, whose anxieties to provide for the happiness of their children, render them incapable of attending to the plainest dictates of reason and the most impressive lessons of experience.

A youth supplied with cash to the amount of his wishes, to be employed for his pleasures in such ways as his undisciplined inclinations may lead him into, and which will most probably be to dissipated company, gambling houses, and the resorts of obscenity and intemperance, will enjoy much less real happiness than an apprentice under the strictest master of a mechanic art. Besides, such a youth must expect ultimately to find the apprentice of the mechanic, and many a farmer's son, infinitely his superior in the estimation

comforts; and if he has any reflection, he will look back with bitter but unavailing regret on the cruel indulgence of his parents. Better for him would it have been if he had been the offspring of poverty, or, as is sometimes the melancholy fact, better that he never had been born. But should he, by a happy-constitution, or a fortunate concurrence of circumstances, be kept from the paths of dishonor and vice, still the chance is great that his pursuits will be after frivolous objects, and that his character through life will be marked with the stamp of insignificance. To such a doom do many of our most wealthy and respectable citizens deliberately devote their offspring. Cruel parents! Neglecting to bring up a son to any business, trade or profession, whatever may be the rank or condition of the parent, is a crime of the deepest die—it is next to murder—It is the same thing as cutting off from society one of its members, whose usefulness, if a due discharge of parental duty had not been omitted, might have been eminently great—It is more—It is letting loose on society one, who, as he has not been taught to do any thing useful, must of necessity do mischief, for inaction is unnatural. If his constitutional powers, temper and disposition happen fortunately to be feeble, mild and spiritless, he may be comparatively harmless. But the greater his powers, the more ardent his temper, the more perverse his disposition, and the more inflated his pride, and these commonly go together, the greater is the evil to be apprehended from him—It is a parent's devoting his child to that unhappy existence, which is the inevitable lot of all who are not put into the road of useful employment, and often it happens that it is also consigning him to ignominy, coupled with every calamity of life in its most terrible form—It is a crime of the worst kind against the community—It is one of the most cruel curses that a father can inflict on a son.*

Let the biographies of eminent men be consulted, and it will be seen, that, superadded to the ordinary severities of their instructors or masters, their distinction is to be chiefly ascribed to *self-imposed* severities, deliberately adopted and perseveringly observed, till they have rivited the habits that gave the complexion of their fortunes and determined their destinies. Such men have in their education and subsequent pursuits submitted themselves to privations and toils compared with which the apprenticeship and labors of the most active farmer may be said to be but of trifling amount. Without such self-imposed discipline, Franklin would not have risen above the standing of an ordinary printer. Washington, whose name is encircled with a halo of glory unparalleled among mortals, would have been confounded with the common planters of Virginia, had he not, from early life, subjected himself to a uniform series of labors and sufferings, both of body and mind, of which the most industrious farmer or mechanic cannot form an adequate idea. It is nevertheless true, however, that the innate greatness of such men gives them a sublimity of feeling that makes their labors and sufferings

comparatively light. And so will it be with all who undertake a profession with that exalted enthusiasm which is not to be daunted, nor chilled for a moment, by prospects of the greatest obstacles, but, ever confident of victory, will encounter them with the utmost promptitude and alacrity, however formidable and appalling their character or appearances may be.

The chief difference between the noble and ignoble of the human race is this: The one, after having obtained a distinct view of his duties, and the necessary means for attaining a noble end, prescribes to himself a conduct for accomplishing his purposes from which he will never deviate, whatever may be the temptations or discouragements to induce him to relinquish it or to relax in his efforts. The other will, on the appearance of every little difficulty, shrink into himself like a snail, or sink into a helpless state of despondency.

Read the *choice of Hercules* when addressed by *Fame* and *Pleasure*, personified as deities. Had he been intimidated by the labors which the first required of him, or accepted, like many an unfortunate youth of our times, of the promised dalliances of the other, instead of obtaining an immortal fame, he would have sunk, a miserable, debauched, effeminate wretch, into the gulf of oblivion.

Nothing is more idle or preposterous than the notion that success or celebrity, in any sphere, can be obtained without great exertion and intense application. Reason, at the first glance, pronounces it foolish; and every day's observation shows it to be false; and yet it seems, some parents think that their sons will become *something* without any labor to qualify them for it, and as a consequence, their sons dream of distinctions without an effort to attain them. They expect to glide smoothly down stream on the credit of a family name, or a family's riches, or possibly on the reputation of a superior genius, without the necessity of combatting contrary winds and currents, into a port where accumulations of wealth and honor await them. Miserable dreams! fatal delusions! No: young men must have it impressed on them, as an undeniable self-evident proposition, that they must work, and work hard both in qualifying themselves for the business of their profession, whatever that may be, and in conducting it afterwards, if they have any ambition to be seen in the ranks of honorable men; and that all their powers must be strenuously, systematically and perseveringly exerted, if they aim at any thing like superiority.

(TO BE CONTINUED.)

MASSACHUSETTS AGRICULTURAL REPOSITORY AND JOURNAL, FOR JUNE.*

(Continued from p. 22.)

The next article which merits particular attention, is by J. Lowell, Esq. on the culture of Sea Kale, (*Crambe Maritima*), and of the Salsafy, or Oyster Plant, (*Tragopogon*.)

Mr. Lowell says these plants were introduced some years since, but their use has not become

common in this country, although they are both favorites at European tables.

"The Sea Kale is a plant of recent introduction in Europe. Perhaps its culture cannot be traced back beyond forty years. It is a native of the sea coast of the Southern parts of England, where it is found growing in sea land.

"It is very hardy—grows in any tolerable soil—is perennial, and costs not half the labor bestowed on asparagus. It may be raised from the seed or from the root, and fifty plants, occupying a very small space, will supply a single family. In its taste it resembles the Cauliflower. The only labor it requires is to cover it with sand, or earth, or with pots, or boxes in March so as to exclude the light, and to blanch it, or make it white. If not blanched it is neither so beautiful to the eye, or so tender, or so delicate to the taste as if blanched. It should be thoroughly boiled, and is better if boiled in milk and water. It should be served up like Cauliflowers, with melted butter. It comes in at season in which our vegetables in this country are very deficient.

"If in England and France, where it has to compare at the same table with green peas and spinach, it is admired as a luxury, can it be possible that it will not eventually succeed with us? We shall be happy to furnish seeds of it to any persons who may be disposed to introduce it."

"If in older countries, with milder and shorter winters, in which they give you green vegetables nine months in the year, they value such a plant as the Sea Kale, it must be of great value to us, whose soil is bound in frost from the 10th of November to the first of April, at sterile till the first of May."

"It requires no manure as the Asparagus does. It is indeed injured by it, and if our farmers in the interior had a patch of it in the gardens, they would have an earlier succulent vegetable to eat with their salted provision than any other they could raise."

Hill's British Herbal remarks that, "The people about the sea coasts boil the *Crambe Maritima*, in the way of savoy and cabbage and the like; and it is very well tasted and perfectly wholesome. This had led some to take it into their gardens, and it is preferred to most other kinds at table."

"The Salsafy, or Oyster Plant," Mr. Lowell continues, "is another vegetable of easy production, and universally eaten, when introduced to the table. I know no one vegetable which is more esteemed.

"It resembles a small parsnip in its appearance. It is raised annually from seeds, and easily, requiring no more care than the carrot. It bears a tolerable crop. In Europe it is eaten both boiled and fried. In this country it is prepared both boiled and fried either in batter, or without. It forms an admirable garnish for boiled

publish useful than original matter; and surely circulation of any article which promises advantage to the public ought not to be limited to the publication in which it makes its first appearance. In England it is published in any one of the many scientific periodical works with which the country abounds, it is copied into all the rest. Each paper has generally a share of matter, written for that particular paper, the greater part of its contents is selected from contemporaneous publications.

* The author has been informed, that in a town in this state, not as populous as Albany now is, and not less healthful, out of forty young men of the most respectable families who had reached the age of manhood, and who had not been educated for any profession, not one survived his fortieth year.

* Some persons may, perhaps, think it needless for us to quote largely from a publication which is in the hands of many of our readers. But, we beg leave to observe that the greater part of our subscribers do not take and have no chance to peruse the Massachusetts Agricultural Repository. We are more solicitous to

fowls or turkies. In its taste, it so strongly resembles the oyster, that when sliced, and fried in batter, it can scarcely be distinguished from it. If our gardeners would introduce it into the market, and our citizens once try it, there would be no danger of its ever failing hereafter to be raised. It is in eating from November to May, precisely the period in which our vegetable market is most deficient in variety.*

Mr. Lowell, in this article, states his confidence in the success of attempts which are making to naturalize the Sweet Potatoe in New England, and says,

"We are confident they will be regularly for sale in Boston market, from this time forward. We have had experience this spring of their hardihood. They encountered a severe frost on the sixth of May, after having been transplanted from a hot bed, where they were made paternally tender. They were cut down by the frost, but have started again more freely than common potatoes. They are now one month earlier, than any we ever raised, and we feel no doubt that they will produce an abundant crop, and those which will not sell, will furnish the best possible food, for pigs, cows, and poultry. This is no speculative theory, but the result of four years constant observations and experiment. We have no idea of its being an object of general culture, but it will, and must form a part of the cultivation for the market, and of gentlemen, who feel a taste for horticulture."

The next articles are long, and relate entirely to Horticulture. The writer in an introduction to "Extracts from the Horticultural Transactions," complains that

"We are utterly destitute, in New England, of nurseries for fruit trees on an extensive scale. We have no cultivators on whom we can call for a supply of the most common plants of the smaller fruits, such as strawberries, gooseberries, raspberries of the superior kinds—we have no place to which we can go for plants to ornament our grounds—we have not a single seedsman, who can always furnish us with fresh seeds of annual flowers on which we can place a reliance. These are trifling evils compared to the want of bread, but when we are filled with abundance, we look round for something to gratify our tastes."

"Let those, who please, laugh at the absurd-

*Rees' Cyclopaedia observes, in substance, that the talks of the Tragopogon, or Salsafie "may be cut in the spring, when they are four or five inches high, and dressed like asparagus, in which way they eat very tender and well;" and gives the following

"Method of Culture.—The seed should be sown in the spring, in an open situation to remain, either broadcast and raked in, or in shallow drills eight or nine inches asunder, scattering the seeds thinly, and covering them half an inch deep; and when the plants are come up two or three inches in height, they should be thinned and weeded by hand or the hoe, leaving them eight or ten inches asunder, repeating as required, during the summer, which is all the culture they require, and they will have large roots by the autumn, as early as September or October, when they may be begun making up for use; and in November, when the leaves begin to decay, a quantity should be preserved in sand for use, when those in the ground cannot be got up.

"In the spring, when those remaining in the ground begin to shoot, the shoots, when a few inches high, may be cut for use, which, when quite young and tender, on being boiled are excellent eating. The roots are brought to market in bunches during the autumnal and winter seasons."

ity of talking seriously of the importance of raising ornamental trees, shrubs, and herbaceous flowering plants; let them ridicule the zeal, which would furnish us with all the varieties of fruits, which grow from Palestine to Archangel, which would supply our tables with lettuce in February, and green pease in March, yet there are few of these laughing gentlemen who would not gladly see and taste these rarities, and they must be had, and will be had in spite of ridicule. They are in truth as rational sources of pleasure, and as just objects of pride and display as a fine carriage, or superb dresses. They in truth, give more general pleasure; for while the coach and the muslin robe are chiefly gratifying to the owner, those who cannot afford either the one or the other, *can feel*, and often do feel, more exquisitely, the pleasures derived from the display of the beauties of flowers, or the taste of the delicious fruits of nature. The cultivator then of fruits and flowers is much less selfish. Their sweets are not produced for him alone. He can derive little pleasure from them, but by their distribution."

"To shew the utter incompetency of our own nurseries (if the few we have can be dignified with the name.) I will simply state the fact, that one hundred roots of strawberries, all of which were nearly dead, sold at the late sale at auction for a greater price than fine plants of approved sorts, would be sold for in England, and that raspberry plants sold at such a price, as would have given me six hundred dollars, had I chosen to break up my raspberry plantation and send the plants to auction; and I could have guaranteed better plants and better sorts than any which could be expected in a promiscuous importation and as good as can be found in Europe. This shews the demand and the inadequacy of supply."

(TO BE CONTINUED.)

WORCESTER COUNTY

CATTLE SHOW, EXHIBITION OF MANUFACTURES, AND PLOUGHING MATCH,

At Worcester, on Wednesday, September 25, 1822.

The Committee of Arrangements, appointed by the Trustees of the Worcester County Agricultural Society, give notice, that in the discharge of their duty, every accommodation will be afforded to the citizens of the county and the public, which this interesting occasion may demand. From communications which have been made to them, they have the pleasure of anticipating a more excellent Show of Cattle and a finer Exhibition of Manufactured Articles than in any preceding year, and they doubt not of the best endeavors of the industrious, spirited and prosperous inhabitants of this extensive, populous and rich county, to render the day most highly creditable to their exertions, and eminently gratifying to the numerous and distinguished strangers, who may honor it by their attendance.

The Ploughing Match will lead in the exercises of the day. The Teams must be on the Field, prepared to start at 9 o'clock, A. M. precisely. By the rules of the Trustees, "those persons who design to become competitors, must give notice in writing to the Recording Secretary, on or before the 15th of September next, that suitable ground may be obtained, the proper number of lots measured and marked out,

and the requisite arrangements made for the occasion.

A Procession will be formed, immediately after the Ploughing Match, of the Officers and Members of the Society and of invited strangers, and proceed to the South Meeting-house, where Prayers will be offered by the Chaplain of the day, and an Address will be delivered by a Member of the Board of Trustees.

The Pens for the Cattle will be erected on the Common, near the Meeting-house.

The Procession will be conducted from the Meeting-house, into the area between the ranges of Pens, for the examination of the Animals.

The trial of Working Oxen will follow the examination of the Stock.

The Examination of Manufactures will be attended to *in private*, by the Committee appointed to that duty on Tuesday the 24th of September, and the articles must be entered with the Recording Secretary, and delivered to the person appointed to receive them before 11 o'clock of the forenoon of that day. These articles, *together with whatever is curious and wonderful in fabric, or in the product of the Earth, will be publicly exhibited in the Rooms of the Society from 9 o'clock, A.M. until 5 o'clock, P.M. of the 25th.* The citizens of the county are respectfully and earnestly solicited to contribute to the interest in the Exhibition, by sending to the Rooms any article in their possession, which may be worthy of observation, although it may not be of the description advertised for Premium. The most faithful attention will be paid to preserve every thing from injury, and to restore the property to the respective owners. The Rooms for the Exhibition, are furnished to the use of the Society by the liberality of Major Flagg, and are the same which were used the last year.

The Funds of the Society will not admit of further gratuities for the Exhibition of Teams of Cattle from the neighboring towns, but the Committee trust in the public spirit of their fellow citizens that the high gratification afforded by the fine display made by the good yeomanry of Sutton and Shrewsbury, the two last years, will be renewed at the approaching Cattle Show, by similar Exhibitions from those and other conveniently situated towns of the county.

The respective Committees of Premiums will make their Reports, and the Premiums will be awarded in the Meeting-house, at five o'clock, P. M.

Marshals are appointed and will be under oath, to enforce the Rules and Regulations of the Trustees, and to preserve good order on the occasion.

God speed the plough, and give success to the Spindle, the Shuttle, and the Loom!

LEVI LINCOLN, THEOPHILUS WHEELER, OLIVER FISKE, THOMAS CHAMBERLAIN, NATHAN HOWE,	} Committee of Arrangements.
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Worcester, Aug. 28, 1822.

Mr. Isaiah J. Hendrix, of Bennington, (Vt.) has lately invented, and obtained a patent for an instrument called the Delineator, to be used in the cutting of garments. Being fitted for the fashion required, it shows with precision all the points necessary to be found in cutting for any size or proportion.

FACTS AND OBSERVATIONS RELATING TO
AGRICULTURE & DOMESTIC ECONOMY.

LIQUID MANURE.

Mr. Robert Smith, President of the Maryland Agricultural Society, gives the following account (which is taken from the American Farmer) of the arrangements he has made for the preservation and application of the liquid manure, yielded by his stables and barn yard at Orange, two miles from the city of Baltimore.

"The yard is situated to the south of the barn; on its east and west sides are built cow-stables, which extend almost the whole length of the yard. In these stables, well ventilated, are several ranges of cattle standing in separate stalls, and each secured by a chain and halter. At the tails of each range of cows, there is a drain, made of strong planks fourteen inches wide, and twelve inches deep, and so fixed as to receive all their dung and urine. These several drains have a sufficient declivity to carry all fluid matter to their southern terminations, where they intersect similar drains, which convey all their liquid manure into a cistern fifty feet long, six feet wide and six feet deep. This cistern is so placed and constructed as to receive not only the urine of the stables, but also all the liquid matter of the farm yard. In it there is a pump by means of which its contents are pumped into a large hogshead fixed on a pair of wheels drawn by oxen. To the end of this hogshead is attached a box, pierced with holes, into which this liquid matter flows through a spigot and faucet, and is then sprinkled over the ground as the oxen move forward. Before these drains had been made, the stables, notwithstanding the greatest exertions of two pains-taking men, were so wet and dirty that the cattle could not be kept free from filth. But since they have been made, the stables have been dry and clean, so as to be comfortable to the cows, and agreeable to the milkers. But this is not all. One man has now so little difficulty in cleaning the stables that he has time enough for the currying of all the cows in the most perfect manner. At the time of laying these drains, I was somewhat apprehensive that they would prove too deep; but experience has shewn, that they have the recommendation of convenience as well as of cleanliness. Were they but five or six inches deep the cattle would often stand with their hind feet in them, and in such case the advantages of the drains would be but partially obtained.

"In the middle of the farm-yard is a large trough supplied with water for the stock from a hydrant. This water is conveyed in pipes under ground from the milk house. A line of these pipes I am about laying so as to have a hydrant at the upper end of every drain to furnish water for the washing of the stables. All the water employed in this operation, carrying with it the dirt of the stables, will flow down the drain into the cistern to the no inconsiderable increase of its invaluable contents.

"The urine in the cistern contains not only its own constituent fertilizing properties, but it is also highly impregnated with certain portions of the dung with which it had been mixed, and among which it had flowed. The beneficial effects of this species of manure are practically known to all farmers. And Sir Humphrey Davy and other chemists have assured us that urine contains in a state of solution the essential ele-

ments of vegetables. The highly celebrated author of the Code of Agriculture, has, moreover, stated that Mr. Harvey, of Glasgow, by using cow urine has cut grass six times in a season, and that the average of each cutting was fifteen inches in length."

Should the farmer think that drains, of the above description, would be too expensive, he may obtain some practical hints from the following observations by Sir Humphrey Davy.

"When dung is to be preserved for any time, the situation in which it is kept is of importance. It should, if possible, be defended from the sun. To preserve it under sheds would be of great use; or to make the site of a dunghill on the north side of a wall or building. The floor, or place, on which the dung is heaped, should, if possible, be paved with flat stones; and there should be a little inclination from each side towards the centre, in which there should be drains connected with a small well, or cistern, furnished with a pump, by which any fluid matter may be collected for the use of the land. It too often happens that a dense mucilaginous and extractive fluid is suffered to drain away from the dunghill so as to be entirely lost to the farm."

The Complete Grazier says that "Urine or the liquor of farm-yards, is a fluid capable of being employed with great benefit both on meadows (mowing lands) and arable land, which renders them uncommonly fertile. It should be used as fresh as possible, as the soluble animal matter it contains is destroyed by putrefaction; and if not mixed with solid matter should be diluted with water, as, when pure, it contains too much animal matter to form a proper fluid nourishment for absorption by the roots of plants.

"In order to make the most of this valuable manure it should be carried to the mowing land or pasture intended to be watered in dry weather, as the farm yard liquor in the reservoirs is at that time strongly impregnated with salts, which may be known by its deep brown tinge. Thus the reservoirs, or ponds, appropriated for its reception, may be constantly kept in a state of readiness for that purpose; while the land may be watered or sprinkled as often as the operation may be necessary.

"An interesting account of an economical mode of collecting and applying the urine of cattle as a manure to land, has been communicated in No. XLIX, of the Farmer's Magazine, by an intelligent farmer, Mr. Charles Alexander, in the vicinity of Peebles. His farm buildings are so disposed, that the urine of all the stalls is conveyed by trunks into a dung pit; and the dung is laid in a place appropriated for that use, instead of being thrown into the middle of the yard, according to the usual practice. The dung pit is twelve yards square, and four feet deep, and is filled with mould previously carried into it, for the purpose of being impregnated with the urine and moisture from the dung. This pit produces about 238 cart-loads, forty of which are sufficient for an acre. The dung itself is laid on the land in the common way; but the compost, made by the urine, &c. with the mould, is spread on the surface after ploughing, and is merely harrowed in."

NEW APPLICATION OF PLASTER OF PARIS.

A correspondent to the American Farmer says that he has ascertained by experiment that

plastering clover largely at the time of turning it down, and preparing for a wheat crop, is by far the most advantageous to the crop, and much preferable to turning in the clover in the usual way and plastering on the surface. He states that "the action of the plaster, thus excluded from atmospheric air, upon the clover, covered over, is instantaneous, and the putridity is so certain as to cause considerable gas, which in its passage through the clod, impregnates it with all its manuring qualities, and the root of the plant shoots down and feeds on a bed of manure."

ON THE FORMATION OF MORTAR.

Extract from an Essay of James Anderson, L.L.D. F.R.S.

"The best modern mortar I ever saw, was made of lime that I myself had analyzed, and found it contained eleven parts of sand to one of lime.—To this there was added between twice and thrice its whole bulk of sand by measure, which may be allowed to have been at least three times its quantity by weight.

"Now supposing that every particle of that lime had been so perfectly calcined as to be in a caustic state, there could not be less than forty seven parts of sand to one of lime. The reader may allow what he pleases for the uncaustic part of the lime, and make his calculation accordingly. But it is hardly possible to suppose, that above one hundredth part of this mass, independent of the water, consisted of pure caustic calcareous earth.

"But whatever was the exact proportion of caustic lime, the mortar was made of these materials in proportions expressed, and was employed for pinning the outside joints of the stone wall of a house situated in a tempestuous climate, and exposed to every blast. It is now about fourteen years since it was finished, and I do not believe there has fallen to the ground in all that time, one pound weight of the mortar.*

"Had this mortar been employed in building a thick wall, where it would have been suffered to dry slow enough, there seems to be little reason to doubt but it would in time have become as firm as the stones of the wall itself.

"From these considerations we may clearly see, that it is impossible to prescribe any determinate proportion of sand to lime, as this must vary according to the nature of the lime and other incidental circumstances, which would be tiresome to enumerate, and which would form an infinity of exceptions to an general rule.

"But it would seem, we might safely infer that the moderns in general, rather err in giving too little sand, than in giving too much.

"It deserves, however, to be remarked, that the sand, when naturally in the lime-stone, more intimately blended with the lime, than can possibly be ever effected by any mechanical operation—so that it would be in vain to hope to make good mortar artificially from pure lime, with such a small proportion of caustic calcareous matter, as may sometimes be effected when the lime naturally contains a very large proportion of sand. But there seems to be no doubt that if a much larger proportion

* In a note to a second edition of this work is the following addition:—"After seven years longer trial the mortar still proves good and firm, and exhibits no appearance of ever falling."

sand were employed, and if that were more carefully blended, and expeditiously worked, than is common, the mortar would be much more perfect than usual in modern times.

"This I have tried experimentally, with the desired success."

From the N. England Journal of Medicine and Surgery.

Messrs. Editors,

If you think a publication of the following facts which I have obtained by reading some late writers upon the subjects to which they relate, will be of any public utility, you are at liberty to insert them in your valuable Journal.

J. B. BROWN.

A knowledge of the diseases of animals in general, cannot be inferred from a knowledge of the diseases of any one particular species of animals.

Thus he who is acquainted with the diseases of the horse, would not from that circumstance be able to prescribe correctly for the diseases of quadrupeds generally. The anatomy and physiology of animals differ. For example, the dog has no insensible perspiration. The mouth of the horse performs but one office, that of conveying food to the stomach. It conveys nothing to the lungs or from them. It has nothing to do with the modulation of his voice, as in most quadrupeds and in man. The passages to the lungs and to the stomach in the horse, are distinct.

The horse unlike most other quadrupeds has no gall-bladder, notwithstanding a work which has been through *twelve* editions, and one at least in this country, (Taplin's Farriery) gives a particular description of the diseases of the gall-bladder, and the symptoms of those diseases.

It has been stated above, that the anatomy and physiology of animals differ, so also do their diseases.

The horse is not subject to fever, i. e. he has no simple, idiopathic fever, no cold, hot and sweating stage, as man has. The feverish action, which the heart and arteries of the horse sometimes assume is sympathetic, and is always preceded by some local affection. It is a disease of irritation.

The eyes of the horse are subject to a species of cataract, that affects no other animal. It arises from a constitutional disease, brought on by bad stabling. It is never produced by local injury. This species of cataract commences with an inflammation of the conjunctiva, without any apparent cause. Local applications have no effect in removing it. The only rational method of treating it is to remove, if possible, the constitutional disease and improve the health and condition of the animal.

Oxen and cows have the disease called bots in their skin, but in the horse this disease (if it may be so called) is confined to the stomach.

Farcy and glanders, I believe, are diseases peculiar to the horse. I know of no other animal subject to them. They are contagious diseases, but may be produced without contagion, by bad stabling. The poisonous matter of farcy will produce glanders, and *vice versa*. Farcy is now ascertained to be a disease of the superficial absorbents; whereas in all the old books on the veterinary art, it is represented as a disease of the veins.

A horse glandered has the whole mass of blood contaminated. This may be considered by medical gentlemen as an important fact, as it goes to prove the doctrine of humoral pathology. That the whole mass of blood is diseased in a horse affected with glanders has been proved by the following experiment made by Mr. Coleman, Professor at the Veterinary Institution, England.

He took a young healthy ass, an animal, as he states, peculiarly susceptible of the disease, and introduced a pipe having a stop cock into the jugular vein, united by means of an ureter to another pipe, which he introduced into the carotid artery of a glandered horse. He then bled the ass to death, by opening his carotid artery, and turning the stop cock, admitted the blood of the horse into his vessels, and resuscitated him. The result was that the ass became violently glandered. He inoculated other asses from the matter produced in him, and was able to carry on the same disease.

Corns in the feet of horses are very unlike corns on the feet of the human subject. There is nothing which grows in the feet of horses that constitutes corns. There is no increase of substance. Corns in the feet of horses are mere bruises. Every body has seen or experienced the effects of bruises upon the human nail. Corns in the feet of horses are injuries of a similar nature. The red appearance which they have is caused by an extravasation of blood which spreads itself among the fibres of the horny hoof. Corns are generally occasioned by the shoe. They may, however, arise from other injuries. They are easily cured by suitable remedies and a proper mode of shoeing, unless the inflammation occasioned by the injury has been of long standing and assumed a chronic character. In this case the cure is more tedious.

Horse ail.—I will take this opportunity to make a few remarks on the nature of this complaint.

Strictly speaking, all diseases of horses are *horse ails*; but custom has given this epithet to a species of disease very common among our horses. The disease referred to, is called *strangles* in most of the old books on Farriery. It consists in an inflammation of the membrane lining the nose and the arytenoid cartilages. This disease is accompanied by a cough and a discharge from the nostrils. The cough is sympathetic, and is produced by the extreme sensibility of the membrane thus inflamed. The lightest dust, or even a drop of water lodged upon this membrane, in this irritable state, produces coughing. The inflammation sometimes extends to the lungs, and then this disease is accompanied with a disease of the chest, and requires speedy and energetic treatment, as inflammation of the lungs in the horse is apt to terminate speedily in gangrene. Copious bleeding, from six to ten quarts at first and smaller bleedings afterwards, as the state of the case may require, and small doses of aloes from one to two drachms, given daily, have been found the most successful remedies in inflammation of the lungs. Drastic purgatives should be avoided, as they increase the irritation, and put the life of the horse in extreme hazard.

It has been stated above, that the diseases of animals differ as much as their anatomy and physiology. The specific effect of medicine upon different animals is no less various than their structure and diseases.

Glauber's salts in doses of one pound operate on the ox as a cathartic, but on the horse they operate principally as a diuretic. Castor oil does not operate on the horse as a purgative, any more than train oil or any other oil.

Opium does not produce its specific effect upon the horse. It operates merely as an astringent. It has no anodyne effect, as it has upon man. It will not mitigate pain. It is unfortunate that most writers on the veterinary art have copied from each other, and have recommended medicines for the horse which are known to be useful to men. Thus calomel, rhubarb and colocynth, have been recommended as purgatives for horses, whereas they are now known to have no such effect on that animal.

Bark produces no sensible effect upon the horse.

There are no medicines that operate on the horse as ipecacuanha and tartar emetic do upon the human subject.

Tartar emetic in doses of four ounces will sometimes occasion a little nausea and purging, but in smaller doses it has no sensible effect. No preparation of mercury will produce salivation in the horse. His gums may be made sore by mercury, but ptyalism cannot be produced by it.

Sugar of lead which is known to be a most deadly poison to man, the horse can take without injury. Tobacco has no deleterious effect upon the horse.

Hellebore in doses of half a drachm produces a tendency to nausea in the horse. Hemlock is good food for goats, but a deadly poison to man; and wheat, the natural food for man, is poison to the horse. Spirit of turpentine, which an infant may handle without injury, operates as caustic when applied to the skin of a horse, although it may be applied to sores and fungous flesh on that animal without producing pain.

"All great improvements have originated from men who combined science with practice, and there is not at present a more popular pursuit in England, nor a more interesting topic of conversation in well informed circles, than the philosophical and leading doctrines of agriculture. This art is now clearly understood to be the chief support of national greatness and independence; and the various questions in political economy to which it gives rise and affords a solution, all hold a share in the general interest."

Young's Letters of Agricola.

Speaking of Agriculture, the same writer observes, "I hold it as unquestionable, that there is no other art in the whole compass of human ingenuity and skill, which admits of such interesting experiments, of such a clear insight into the laws of matter, of such philosophic contemplation, of such healthy and invigorating exercise, and of such intimate union with all the sciences that ennoble man and exalt him to his just pre-eminence."

THE PLEASURE OF PLEASING.

To a man who possesses a good heart there can be nothing more pleasing than the consciousness of giving pleasure to others. The luxury of doing good is a most exquisite as well as a most innocent luxury to him whose feelings and affections are such as make a man capable of enjoying as well as bestowing happiness.

NEW ENGLAND FARMER.

BOSTON:—SATURDAY, SEPT. 7, 1822.

THOUGHTS ON AGRICULTURE, AND CERTAIN MEANS
FOR ITS IMPROVEMENT.

The celebrated Sully declared agriculture to be the breast from which the State must draw its nourishment. Commerce and manufactures he considered as the sinews of the State, and deserving all possible encouragement. But, perhaps the most effectual way to encourage commerce and manufactures, is to foster agriculture, which is the parent of all improvement, and the source of all national and individual prosperity. The manufacturer must eat his bread at a moderate price, or his work shop will cease to support him, and he will either drag on a wretched existence in penury and discontent, or seek, by emigration, some amelioration of his circumstances. The merchant, likewise, cannot expect to flourish in a country whose soil is unproductive, and whose inhabitants of course are too poor to afford remittances to sanction his importations.

Merchants and manufacturers, therefore, who are alive to their own interest, will encourage agriculture by all the means in their power, and will be sensible that it is the first and greatest link in that chain of national prosperity, which embraces all ranks in a happy and well regulated community. Agricultural Societies, and Publications on Husbandry, are among the most approved means of giving speed to the plough, and success to the labors of the husbandman, and ought, therefore, to be patronized (as they frequently are) by those pursuits are entirely remote, and apparently foreign from rural occupations.

Every man who cultivates the ground should be ambitious to contribute something from the stock of his knowledge, whether acquired by reading, observation or experience, to the general fund of agricultural information. By this means he may become a benefactor of his species, and be placed higher in the estimation of good men, than the greatest conqueror, who ever waded through seas of blood to the summit of that "bad eminence," which can only be ascended by devils and heroes. If he is convinced that he has made any improvements, which promise to be useful to his fellow creatures, he will not perform the part of a patriot nor philanthropist if he does not put mankind in possession of such improvements. If he can gain any equivalent for his discoveries by virtue of patents, premiums, or otherwise, let him obtain it. If not, he will do well to lay them before the public, and take his reward in the consciousness of having been of service to his fellow creatures. The man, who refuses a benefit which he might bestow without injury to himself, is but little better than one who does an injury without receiving any benefit from the injurious act. The latter destroys human happiness, and the former withholds the means by which happiness might have existed.

It is no apology for these misers, whose thoughts are worth money, and therefore hoarded in their own bosoms, to say that they cannot write in an elegant style, and do not know how to put their ideas upon paper in such a manner as to escape the ridicule of men of learning. If they cannot write elegantly, they may perhaps write naturally, so as to be understood, and nothing more is wanted. If a farmer has discovered some improvement relating to his occupation, which, if generally known, would prove of general utility, and thinks he cannot well describe it in writing, let him tell his story concerning the matter, either to the editor of this paper, or to some other person, who will write off his information in a plain style, and send it to the New England Farmer, or some other periodical work, for publication.

There should be no secrets in agriculture, and whatever concerns the public good, the public should be put in possession of. The benefits which would result from the more general diffusion of agricultural intelligence would be immense, and almost incalculable. We will state a few evils which infest the husbandman, and may be styled the plagues of agriculture, and set down concisely their real or supposed remedies, and leave it for the reader to judge of the advantages which would result from the universal extension of the knowledge of those remedies, which are effective, or of others more efficient, where they are unavailing.

In some seasons the vegetables in our gardens are almost annihilated by worms of several species. Fall ploughing, or spading the ground just before frost sets in, and strewing the ground with fine salt in the spring some time before the seeds are sown, are said to be sovereign remedies against these petty but powerful depredators.

There is a kind of worm (which the learned call *curculio*) found in apples, pears, and some other sorts of fruit, which either injures or destroys little if any less than one half of the fruit produced in New England. It is said (but the report wants confirmation) that spent tan from the yard of the tanner, spread about the roots of fruit trees, will secure them against these little thieves, who steal every year about one third of the products of our orchards, and injure a considerable part of the remainder. Spent tan, likewise, some suppose, will prove a specific against canker worms and caterpillars. We solicit further information on this subject.

There is another kind of worm, which bores its way into peach trees, locust trees, &c. at or near their roots, which some say should be cut out with a knife, or chisel, and others affirm that soap suds, heated after a family wash, and poured about the roots about the middle of August, will destroy the eggs of the young worm. Unleached ashes and spent tan are likewise recommended.

There is a worm, or maggot, which affects the head of sheep, supposed to be a species of bot, and which it is affirmed may be expelled by injecting vinegar by a syringe into the nostrils of the affected animal. A worm of the same, or different species, is also found on the outside of the head of sheep, at the roots of the wool about the throat, ears, &c. This, we are told, may be destroyed by the application of spirits of turpentine.

There is a worm, called, we believe, the *wire worm*, which destroys seed corn before it vegetates. The attacks of this insect, we are informed, may be guarded against by soaking the seed corn in a solution of common salt, or salt-petre. But if the solution is made too strong, and the seed suffered to remain in it too long, it will destroy the principle of vegetation, and the corn will never come up, unless you dig it up, as we have found to our cost.

Some people affirm that horses affected with bots, and apparently in the last agonies, may be cured almost instantaneously by the external application of spirits of turpentine to the breast. Others advise to turn a dose of spirits of turpentine down the throat of the animal.

Some assert that cattle or sheep, which are hoven or swollen, in consequence of having eaten too much green and succulent food, may be cured by a dose of lye, made with potash, pearlash, or house ashes. Others say that the animal must be stabbed, scientifically, in order to let the gas escape, which is the cause of the disorder.

Some say that elder juice expressed from the leaves

or berries, or even a decoction or tea made of the common elder, but more especially the dwarf elder, will not only destroy maggots in meat, cheese, &c. but sprinkled over cucumber vines, squash vines, &c. will preserve them against the bugs and flies which so often prove destructive to those vegetables. We have very little doubt of the efficacy of elder for the purposes above stated, but should be glad to learn something further on the subject.

We do not pretend to assert that all, or any of the above named remedies are never failing specifics.—Some of them, however, we know to be useful, having witnessed their good effects; and some others we have collected from persons whose veracity and discernment we have no reason to call in question. Now if even a part of those remedies are efficient, their general knowledge and consequent application would save the inhabitants of New England, in one year, more money than they pay in taxes, of every name and nature, in ten years. It costs a farmer, who owns one hundred acres of land under cultivation, more to maintain the worms in his garden and cornfield, the bugs in his peas, the lice upon his cabbages, the caterpillars and canker worms in his orchard, the flies of his turnip yard and dairy, including the Hessian flies of his wheat field, the bots in his horses bellies and sheep's heads, &c. &c. than it would to bring up a family of children, and send one or more sons to an agricultural college, (if we had such an institution) into the bargain.

These diminutive enemies, however, are easily subdued if we knew how to attack them; and we have no doubt but there are individuals who are in possession of information which would enable every farmer to rid himself of the destroyers; and we ardently wish people possessing such information would forward it to us, or some other printers, to be published for the benefit of mankind.

Worcester Cattle Show.—We are sorry that we are not able to publish, at large, in this week's paper, a list of the Premiums, &c. offered by the Worcester County Agricultural Society. The copy was received too late for insertion in the present No. but shall appear in our next.

COMMUNICATION.

We present the following desultory, but we hope well considered remarks, as a *Communication*, because we propose to speak of "THE NEW ENGLAND FARMER," and its titles to attention, and encouragement, and we would not have it appear to be an editorial article. We have never doubted, that a newspaper principally devoted to agricultural subjects would be of great use, but we have entertained fears that farmers and cultivators would not with sufficient zeal and spirit give it their support. Too many of them believe, that they know enough already—that nobody can teach them any thing which is new—that agricultural labor is so simple, that nothing is necessary to the full accomplishment of a farmer, but to mow well, to hoe his land with expedition, to hold the plough, and drive his oxen with skill, and to commit to the soil, to *any* soil, without considering its adaptation to particular plants, the seed, without any reference to the unquestionable and well settled fact, that after one plant has exhausted the soil of the nutriment fitted for it, another will flourish as well as if the former had not been raised upon it—in short, without any ideas of the use of a succession of crops.

The present state of general information, and particularly the greatly advanced state of agri-

cultural knowledge, forbid the continuance of these indolent and degrading opinions. It is perceived that agriculture as well as its coadjutor, manufactures, is susceptible of great and indefinite improvement, and this improvement cannot be extensively and with due rapidity circulated, and promoted, but by journals published more frequently, than the formal and stated journals of the several agricultural societies. There is another reason, besides the more frequent opportunities afforded by newspapers, and their much more extended circulation, which should give them the preference and make them more extensively useful. The periodical journals have more stateliness and formality—they are composed of essays written in a style more elevated and more learned, than communications in a weekly newspaper commonly are. Many intelligent farmers are therefore deterred from communicating their experiments or suggesting their doubts or their inquiries. No man feels the smallest fear of addressing the Editor of a newspaper, secure of secrecy, and equally secure of admission if he suggests any thing ingenious, novel or interesting.

It would seem to be a paradox, or extremely strange, if while our commercial community consisting at the utmost of 500,000 persons can sustain several hundred newspapers, the agricultural interest composed of the residue of the community and amounting to nine millions can support but two or three *exclusively devoted to agriculture*. It would argue less intelligence, less zeal for their best interests, less desire of improvement among farmers, all which we believe, and hope not to be the case. The truth we believe to be, that they have never been awakened—that they are more quiet, less adventurous, less active, but full as intelligent and full as desirous of improvement when the path is laid open to them.

We have to be sure had newspapers printed in the interior, and agricultural towns, but they have too often been mere copyists of the newspapers of the metropolis. They have, too often, been meagre and dull, with little original matter, and still less of articles devoted to agriculture. Two journals form an exception to this rule—The Plough Boy, printed at Albany, and the American Farmer, printed at Baltimore.—The well merited success of these works entitle the Editors to great praise, and they will have the honor of turning the attention of the public to its most interesting and important concern. Whatever success may hereafter attend agricultural journals will be and ought to be attributed to them in a great degree—but the expense of postage—the difference in the modes of cultivation in Maryland and New York, render these interesting papers of less value with us, than their intrinsic merits would seem to promise. We want a New England agricultural newspaper. It should be centrally placed—and we ask is there any place more convenient than the Metropolis of New England? We are not citizens of the new city of Boston—we have no local prejudices—but we think that the agricultural societies of Maine, New Hampshire, Vermont, Rhode Island, Connecticut and Massachusetts, the cultivation, soil, climate and habits of which are very similar, (taken in a general view) can find no place more convenient for the communication, and dissemination of the experiments, essays and official papers of their sever-

al societies, and individuals of these states can as conveniently communicate with the Editor of a paper at Boston as with one at a distance in his own state.

Having made these remarks favorable to the new paper just published in Boston, we think it proper to add, that we have no connection whatever with the journal, but we believe the Proprietor, and Mr. Fessenden the Editor, perfectly competent to the undertaking, and that with suitable patronage they will fulfil all the just expectations of the agricultural public.

Without such aids both by way of subscription and of communication on the subject of agriculture, this, and every other such undertaking must necessarily fail—with them, they must succeed. Nothing in New England ever failed, to which she put forth her force with perfect good will.

We are happy to remark, that a respectable paper edited at Plymouth, called the "Old Colony Memorial," devotes a part of its pages to agriculture. A writer in that paper with the signature of "Monumet" asks, "is there 'no method of staying the ravages of the worm 'that is devastating our grass and our corn' fields? What is their history? Is their production or their progress in any way connected with the excessive dryness of the season? 'Why have they a singular distaste for shade, 'or moisture, leaving a verdant circle round 'every tree, and making an exact line of demarcation between meadows and upland?'"

While we must commend the spirit of inquiry and the desire of improvement and of obviating existing evils which check the labors of the farmer discovered by this querist, the writer of these queries will we are convinced excuse us, for expressing our regret, that he did not give us more precise descriptions of the insect which has proved to be thus injurious. If he has ascertained, that *it was a worm*, which produced this devastation, he might have described its length, its color, and its first appearance, and duration. Is it the same worm, which attacks the grass, and the corn? A worm, which should destroy or injure Indian corn in August, must be an important enemy, and should be described. Let us intreat our farming brethren when they meet with such an insect to preserve a few of them in phials, that they may be examined by naturalists.

Roxbury, Sept. 3d.

A FARMER.

LATEST FROM EUROPE.

London papers have been received at this port, by the ship Champion, which bring dates from that place as late as July 31. They contain little matter of interest. Tranquillity appears to be in a great measure restored to Spain, and the national militia, who had been encamped in Madrid from the 1st to the 17th of July, broke up at the last mentioned date, and retired to their homes. It is reported, however, that two divisions of French troops had crossed the frontier, and entered the Spanish territory. It is thought that these movements will serve to unite the Spaniards in favor of the popular cause. The French soldiers too, it is said, have expressed an unwillingness to oppose the progress of freedom in Spain.

The Greeks appear to be stemming the torrent of oppression with some prospect of eventual success in the acquisition of freedom. They are said to have burnt, on the 22d of June, the Turkish admiral's ship, and two others, and it is stated that the Capt. Pacha, who commanded at Scio, during the infliction of the barbarities which have desolated that island, has lost his life by the fire, which consumed his ship. The Greeks promise their troops lands sequestered from the Turks.

The distress of the Irish for want of food appears to be but little if in any degree mitigated.

The British Parliament has made an appropriation for publishing by authority, a uniform and regular edition of British History. It is expected to cost about 9000 dollars a year.

The fever in New York continues to prevail, notwithstanding the removal of the inhabitants from the quarter in which the disease made its first appearance. On the 30th Aug. were reported 4 new cases—31st, 3—Sept. 1st, 4—2d, 4—3d, 6. A very considerable part of the population has left the city.

LAW OF PATENTS.

CHARLES EWER, No. 51, Cornhill, has just published, price \$3.50, bound,

AN ESSAY ON THE LAW OF PATENTS FOR NEW INVENTIONS. BY THOMAS GREEN FESSENDEN, Counsellor at Law.

"As the West Indies had never been discovered, 'without the discovery of the Mariner's Needle; so it 'cannot seem strange, if Science be no farther developed, if the Art itself of Invention and Discovery be 'passed over.'—BACON.

The second edition, with large additions, corrected and improved by the author.

RECOMMENDATIONS.

EXTRACTS FROM LETTERS TO THE AUTHOR.

Salem, Sept. 4, 1821.

SIR—I have examined your MS. on the Law of Patents with as much care as my engagements would permit, and I have no hesitation in expressing my opinion, that the work will be highly useful to all persons who are engaged in obtaining patents, or in vindicating them in Courts of Justice. The manuscript contains a collection of all the cases, on the subject of Patents, within my knowledge; and the principles contained in them are detailed with accuracy and fullness in the Summary, at the conclusion. I know of no work so comprehensive as yours on this subject; and it may be relied on as a safe guide. I hope you will receive encouragement sufficient to justify the publication, which I should think would be profitable as well as extensively useful.

JOSEPH STORY.

Thomas G. Fessenden, Esq.

Boston, September 25, 1821.

SIR—We have looked over the manuscript of the second edition of your publication on the Law of Patents. This edition is a great improvement on the first, and we think it will be a valuable and useful book to the profession, as it contains the statutes, and states we believe accurately, all, or nearly all the decisions, which have been made on a branch of the law, daily growing more interesting and important. WM. PRESCOTT, Thomas G. Fessenden, Esq. D. WEBSTER.

Boston, September 27, 1821.

SIR—The new edition of your Essay on Patent-Law, which I have taken some time to examine, is a very improved work. More ample materials, furnished to your hands, by decisions, subsequent to your former edition, have enabled you to present to the public, and the bar a more minute analysis, as well as a more comprehensive view of this branch of law than has yet appeared in England or in this country. Your method of arranging all the decisions, in the order of an analytical digest of the several requirements and provisions of our statutes for granting patents, puts the lawyer at once in possession of the judicial construction of the statutes; while your synthetic summary, far more extended and comprehensive than in the former edition, places within reach of the mechanic a sure means of judging whether his invention is a fit subject for a Patent; what is required of him by the statute in order to obtain his Patent; and what provisions are enacted for securing to himself and heirs his meritorious privilege. I cannot conclude without wishing you the success your labors surely deserve. GEO. SULLIVAN.

Thomas G. Fessenden, Esq.

SUBSCRIBERS to the NEW ENGLAND FARMER who wish to be considered as paying *in advance* for the first Vol. must forward us \$2.50 on or before the first day of October next. All who neglect paying at that time will be charged \$3. We give this seasonable notice that none may complain, as this rule will be strictly adhered to. Sept. 7.

HOME.

Home! 'tis the name of all that sweetens life,
It speaks the warm affection of a wife;
The lisping babe that prattles on the knee,
In all the playful grace of infancy;
The spot where fond parental love may trace
The glowing virtues of an infant race;
Oh, 'tis a word of more than magic spell,
Whose sacred power the wanderer best can tell.
He who long distant from his native land,
Feels at the name of home his soul expand;
Whether as patriot, husband, father, friend,
To that dear point his thoughts, his wishes bend;
And still he owns, where e'er his footsteps roam,
Life's choicest blessings centre all AT HOME.

From the Connecticut Agricultural Almanack.

THE FARMER'S CREED.

Let this be held the Farmer's Creed—
For stock, seek out the choicest breed;
In peace and plenty let them feed;
Your land sow with the best of seed;
Let it not dung nor dressing need;
Inclose, plough, reap, with care and speed,
And you will soon be rich indeed.

From the Old Colony Memorial.

To the Editor.—Sir,

In your last paper, a correspondent inquires, "from whence came the sweet corn, and at what time was it introduced here?"

Of the natural history of the *sweet corn*, it is presumed, that, with all the other species of the Indian corn, it is indigenous to America. Of this particular species, nothing was known in this section of the country (if in New England) before 1779. In that year an expedition under the command of General Sullivan, was sent against the *Six nations of Indians*, inhabiting on the borders of the Susquehannah. Poor's brigade made a part of that expedition. A gentleman from this place,* then an officer in that brigade, on his return, after the expedition, brought some ears of that corn.† That was the first of the species ever seen here, and has, since that time, been more and more diffused; and I believe within a few years only, has been generally and extensively cultivated for culinary purposes. The species has undergone some change since it was first introduced—then the core was a bright crimson, and after being boiled, and the corn taken off, if the core was laid in contact with any linen (the table cloth or a napkin,) it communicated an indelible stain. This inconvenience has disappeared. This species also, like what is distinguished by the appellation of southern or flat corn, by repeated planting here, assimilates it to our local corn—for a number of years I was careful in selecting the largest and fairest ears for seed, until it grew nearly as large and fair as the common corn, and at the same time lost much of its peculiar qualities, *softness* and *sweetness*; and I concluded it would, in process of cultivation, become assimilated to the common corn of New England, although I accidentally discovered that the ears which were produced on the suckers (and it is very much disposed to sucker,) were smaller, much more shrivelled, and in appear-

* Captain Richard Bagnal, then a Lieutenant.

† There called the *Papoon corn*, probably from its tenderness and sweetness made the food of children.

ance perfectly similar to the corn which I first remembered to have seen. I then selected some of the ears from the suckers, which were sufficiently ripe, and served for seed, and found, that on the next year's planting, I had reproduced corn, at the least ten years' retrograde; and have since then annually saved a portion of seed in that mode. The fact will be obvious to any one who is in the practice of gathering the corn, that the ears which are produced on the suckers, though small, retain the milk longer, and are suitable for the table longer, than those that are produced on the leading stalks. If these hints can give any satisfaction to your querist, or can, in your opinion, be the occasion of eliciting any further information on the natural history of sweet corn, you will please give them a place in your vehicle of agricultural and historical information. Yours,

PLYMOTHEUS.

MISCELLANEOUS.

THOUGHTS ON WAR.

It is wonderful with what coolness and indifference the greater part of mankind see war commenced. Those who hear of it at a distance or read of it in books, but have never presented its evils to their minds, consider it as little more than a splendid game, a proclamation, an army, a battle and a triumph. Some indeed must perish in the most successful field, but they die upon the bed of honor—resign their lives amidst the joys of conquest, and filled with their country's glory, smile in death. The life of a modern soldier is ill represented in heroic fiction. War has means of destruction more formidable than the cannon and the sword. Of the thousands and tens of thousands that perish in war, a small part feel the stroke of an enemy. The greater number languish in ships, in tents or hospitals, amidst damps and putrefactions; pale, torpid, spiritless and hopeless, gasping and groaning, unpitied among men made obdurate by long continuance of hopeless misery, and at last are buried in pits, or heaved into the ocean, without notice and without remembrance. By inconvenient encampments, and unwholesome stations, where courage is useless, and enterprise impracticable, fleets are silently decimated, and armies sluggishly melted away. Thus is a people gradually exhausted, for the most part with little effect. The wars of civilized nations make very slow changes in the system of empire; the public perceive scarcely any alteration but an increase of debt, and the few individuals who are benefitted, are not supposed to have the clearest right to their advantages. If he that shared the danger enjoyed the profit, and after bleeding in the battle grew rich by the victory, he might show his gains without envy. But at the conclusion of a ten year's war how are we recompensed for the death of multitudes, and the expense of millions, but by contemplating the sudden glories of paymasters and agents, contractors and commissaries, whose equipages shine like meteors, and whose palaces rise like exhalations. These are the men, who, without virtue, labor or hazard, are growing rich as their country is impoverished. They rejoice when obstinacy or ambition adds another year to slaughter and desolation, and laugh from their desks at bravery and science, while they are adding figure to

figure and cypher to cypher, hoping for a new contract from a new armament, and computing the profits of a siege or a tempest.

Dr. Johnson.

He who goes to bed in anger has the devil for a bed fellow.

An antiquary has been said to esteem every thing as Dutchmen do cheese, the better for being mouldy.

A good character is the greatest of temporal blessings, with the exception of a good conscience; and good health stands next on the list of sublunary enjoyments.

Knaves live upon fools as naturally as spiders prey upon flies. But there is nothing worth being dishonest. Crimes, though secret, are never secure, for Providence has set up racks and gibbets in the consciences of transgressors, and they all carry Cain's fears about them. He that deserves punishment, expects it, and is ever in apprehensions until detected; his very sleep is painful, and his life a terror.

How sweet in the moment of affliction is the exercise of the social affections! they are the balm which, mingled in the bitter cup of grief, allays its harshness, and subdues its venom. No human being can be perfectly miserable so long as he can enjoy the sympathy of one kindred soul; and even when that is denied, the Christian knows there is an ear open to the sorrowful sighings of every afflicted heart.

THE PROGRESS OF LOVE.

Love makes its way insensibly through respect and gratitude, as a flower, which in order to blow, opens the slight texture in which it is enfolded.

NATURE'S MISTAKES.

Dame nature is liable to errors as well as other gentle folks—although, in general way, it must be acknowledged that the old lady is pretty correct in her conduct, yet she sometimes takes steps, which in demi-reps would be deemed very disreputable. She makes calves with two heads, snakes with two bodies, &c. and these are called *lusi natura*, or amusements of nature. But her greatest error lies in the mode in which she forms some people's heads and hearts, by making their heads soft and their hearts hard, although good workmanship requires exactly the reverse.

Age and love associate not; if they are ever allied, the firmer the friendship, the more fatal is its termination; and an old man, like a spider, can never make love, without beating his own death-watch.

[NOTE.—It may not be generally known that the male spider is supplied with a little bladder, somewhat similar to a drum, and that tickling noise which has been termed the death-watch, is nothing more than the sound he makes upon this little apparatus in order to serenade and allure his mistress.]—*Portland Gazette*.

Joking Dialogue.—Would you believe it? Mr. B. tells me he has written a comedy, but I suppose he was joking. By no means, for I have seen it, and I assure you there is no joke in it.

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VOL. I.

BOSTON, SATURDAY, SEPTEMBER 14, 1822.

No. 7.

CONSIDERATIONS

ON THE NECESSITY OF ESTABLISHING AN AGRICULTURAL COLLEGE,

and having more of the children of wealthy citizens
educated for the

PROFESSION OF FARMING.

(Continued from p. 42.)

By the infallible oracles of divine inspiration we are taught, that no man can obtain a good character as a christian, unless he denies himself, takes up his cross—cuts off a right hand, or pulls out an eye, if necessary for his advancement to perfection—Figurative expressions, denoting the extremes of self-denial, fortitude and voluntary suffering. The same doctrine may, with a qualified propriety, be addressed to those who aim at distinction in any of the professions of civil life. Whatever may be the genius or natural powers, there must be the *labor improbus*, hard labor, strong exertions, struggles against improper propensities, a rigid observance of rules, a radical extermination of evil habits, scrupulous improvement of time, an unwavering perseverance, and a judicious exercise of a well disciplined reason in the selection of means or the attainment of the objects to be achieved.

A generous youth, anxious about his fate, waked from his reveries, and adverting to his lost or misapplied time, will often exclaim with the poet,

"The bell strikes one!—How much is to be done!
My hopes and fears start up alarm'd,
And o'er life's narrow verge look down—
On what!"

and redouble his exertions so to improve his natural powers as that they may be displayed in manner the most eminent in the character he has chosen to appear in on the stage of life; diffuse to others the greatest good, and procure for himself the greatest applause, with an approving conscience.

These observations are made to wipe away the flimsy objections which that foolish womanish tenderness, and that contemptible pride, which are the usual concomitants of an imbecility of intellect, may raise against the discipline and labor that will be required by the institution proposed to be created.

But perhaps our young gentlemen, or their foolish sympathising parents, will be afraid that working like a farmer may spoil the delicate complexion of their hands, and destroy that mark which they are to be distinguished from the vulgar. What a ridiculous notion of merit! What contrast to the opinions and practice of the most admired eras of antiquity, when man rose to an unparalleled grandeur! When Cincinnatus, after having, as dictator of the proudest and most powerful nation on earth, performed such deeds as have shed a superlative lustre of glory about his name, and transmitted it as an object of supreme admiration through every age, returned to the plough, and resumed his occupation as a farmer for a living.

"In ancient time, the sacred plough employ'd
The kings and awful fathers of mankind,
And some, compar'd with whom your insect tribes
Are but the beings of a summer's day,

Have held the scale of empire, rul'd the storm
Of mighty war, then with unwearied hand,
Disdaining little delicacies, seiz'd
The plough, and greatly independent liv'd."

As in our civil institutions we have nearly emancipated ourselves from all the trammels bequeathed by the ages of barbarism, and with which the nations of Europe yet remain shackled, so let us also discard such of their customs, and fashions, and rules of taste, as have not a spark of reason to vindicate them; but on the contrary, must, on the slightest examination, appear notoriously derogatory to that independence and superiority of character of which it is the glory of the Americans to be able to boast.

All kinds of useful labor and hardihood, connected with an unimpeachable morality, and a decorous deportment, deserve respect and honorable treatment; and wherever the contrary is customary, a corruption of manners is indicated, which, so far from descending to emulate, we should treat with the proud scorn of conscious superiority.

Every thing in man of an effeminate cast must detract from his character, and if voluntarily acquired, or cherished as a matter of value, deserves contempt. Such is the lady-like lily hand of a *petit maitre*; which is about as proper an object to be proud of as the long nails of the Asiatic beaux, cherished and guarded with idolatrous care, to shew that they are above the rank of laborers, and for the preservation of which, elegant ivory tubes are worn at the ends of their fingers.

A number of considerations not capable of enumeration, besides those already anticipated, crowd on the reflecting mind in favor of an institution, especially in our country, that shall have for its primary object, instruction in theoretic and practical agriculture. But it may be asked, on the introduction of the subject, why have not institutions of this kind been formed and patronized in older countries, especially in England, where agriculture has so much engaged the attention of its first characters, and where it has been carried to such a height of perfection? The reason is obvious. In most foreign countries the fee of the soil is generally in the gentry, who besides their tenancies, have extensive farms under their immediate superintendence; who make farming in some measure a business, and who can afford to make experiments and communicate such as result in improvements of consequence, to those, who, pursuing a steady course, known to be safe and profitable, will not hazard a departure from it without such a demonstration. Such improvements are moreover communicated to their societies or boards of agriculture, by which they are published for the benefit of the public, and thus constantly reciprocated among all who are engaged in its interests.—The sons of such gentlemen farmers, from the practice of which they are the constant witnesses, can hardly fail of acquiring a proficiency in the knowledge of agriculture, so far at least as to qualify them for its superintendence. Thus, then, every landlord's farm, becomes to a certain degree, a school of

practical agriculture, where experiments are constantly made, by wealthy, scientific, and practical men, to ascertain the best methods of profitable culture; where the knowledge of it is transmitted as a family inheritance, and sheds its meliorating influence immediately over a wide circle of tenantry, and remotely over the kingdom at large. And even in those countries there are not wanting some arrangements in their academical establishments for teaching the scientific parts, if not the actual practice of agriculture. But here circumstances are widely different. With but very few exceptions, we have no landlords and fewer still of that class who turn their attention to farming. It is the glory of our country, that with such rare exceptions, every farmer is the absolute, independent lord of his own territory, little as it may be, and works it with his own hands, and by his own hired laborers: His children are his pupils, whom he teaches from their infancy the mysteries of his calling; but the mediocrity of his circumstances, and his habitual prudence will not permit him to hazard experiments for improvements. What he knows of it as practised by his father, will be known by his children, and they will probably during their lives, follow his track without deviation. Under such circumstances, agriculture must remain at a stand, although, like other arts, its past progressive improvements, warrant the presumption that to its future no limits can be assigned.

The Agricultural Societies, organized and brought into action of late, operate principally by the stimulus of emulation; and the good that they are calculated to do, and will unquestionably do, if continued with the spirit with which they have started, and with the improvements which time and experience will indicate, must be great, very great, in a department of business which of all others is the most important to our country. But it is evident that the good derived from them is conveyed through *one* channel, broad indeed and deep, and having attached to it numerous ramifications; still there may be *others* leading to the same port, and as essential to the effectual promotion of our national prosperity. The institution now proposed will not be their rival, but rather a co-operator. Its essential difference of character will be, that, availing itself of all the improvements that have been made, and are constantly making, in the science and practice of agriculture, it will be a school where they will be taught in that perfection to which they have been carried by all those variegated means, and by all the experience of every nation, and every age, since men first emerged from a state of barbarism. It is intended not so much to give instruction to farmers as to make farmers from the other classes of society, which are stocked with such a superfluity of members that hordes of them must otherwise remain useless, or worse than useless to the community—and while this is doing it will shed a light over the profession, that may be greatly useful, even to those who are most eminent in it.

The farming department in America cannot be overstocked, at least for centuries before us,

se wide, so vast, so boundless is the field, that imagination cannot grasp the population sufficient to fill it; and it is only in proportion as it flourishes will be the substantial wealth, the power, the grandeur, and the happiness of our country. It is the only solid foundation on which our national prosperity can be erected, and therefore the object, of all others, that ought first and chiefly to engage the attention of government. No rational scheme for its advancement can therefore, consistent with that wisdom which characterises true statesmen, be treated otherwise than with an impartial and a deliberate investigation of its merits; and if found eligible, whatever apparent difficulties may be in the way, its adoption must and will be effected.

It is therefore true policy to draw, into this field as many as possible, especially of young men, qualified for it by a suitable education, and possessed of a capital sufficient to conduct their affairs to advantage. But how is such an acquisition to be effected?

At present there is no doubt that there are numbers of men of fortune in our states, and many of them large owners of lands, who would wish to qualify, as farmers, at least some of their sons, and give them suitable establishments as such, but are deterred from it by such considerations as the following.

Success in every profession or calling depends on a perfect knowledge of it.—Such knowledge cannot be obtained without actual application for its attainment as a student or apprentice for a competent time.—The profession of a farmer, no less than that of a lawyer, a physician, a divine, a manufacturer, or of any of the mechanic arts, cannot be duly acquired without such application.—For any one to undertake a business with which he is unacquainted, or rather for which he has not been regularly educated, is the height of folly, as it must in all probability eventually ruin him.—In every kind of business there will be sharp competitions, and those who are the most adroit and skilful in it, will, with equal means and industry, make the most by it, and those who have not a competent knowledge of it must suffer in its pursuit.

Now, how are the sons of wealthy gentlemen of other professions to acquire such knowledge of agriculture? At present there is no other way than to put them out to serve as apprentices to farmers. To this there are many objections. From their previous education they will not be disposed to submit to the necessary discipline, and their masters will not have it in their power to enforce it.—They may be associated with laborers whose manners will contaminate theirs.—They will probably be destitute of all society by which they might be stimulated to further advances in their previous studies and a progress in refinement.—Released from adequate restraints, they may be enticed, by profligate companions, into low-bred practices, and contract disgraceful and ruinous habits. And, after all, in the best situations, they could learn little more than the business of a farmer in its most ordinary state.

For all this there is no remedy but an institution like that which is now proposed, the happy tendency of which, when once established, will beyond all doubt be abundantly demonstrated as soon as it shall be completely carried into operation.

It will make agricultural pursuits more fashionable, and engage in them the noblest spring of human activity, the ambition to shine pre-eminently in a sphere of usefulness, of the most brilliant character, and the widest extended magnitude.

(TO BE CONTINUED.)

PREPARING FLAX.

We esteem ourselves fortunate in being permitted to lay before our readers the following extracts from a correspondence between His Excellency the Governor of Connecticut, and S. W. Pomeroy, Esq. of this State. The subject is of great importance, and if it continues to engage the attention of men of mind, influence, character and standing, its discussion may be the means of giving a new staple to New England of little if any less importance than cotton or tobacco to Southern sections of the Union.—ED. N. E. F.

Litchfield, Con. June 25, 1822.

DEAR SIR,

I have read with great satisfaction your Essay on the Cultivation of Flax, and consider it as the best I have seen; what we now want, is a discovery of the best means of extracting the glutinous matter, and decomposing the woody fibre, without fixing the color, so as to render the process of bleaching, difficult and expensive. The common process of rotting in the air, we know will never give us good Flax, and the process of water rotting will not be practised by our people generally; it being a disagreeable and unhealthy business to those employed in it, and besides poisonous to our streams of water.

The extension of our Flax culture, will, in my opinion, greatly depend upon our success in finding out a mode by which common farmers can extract the gluten, and weaken the woody fibre, so as to render Flax, after being stripped of its seeds, manageable by such operations or machines, as can be introduced into common use.

The practical question is therefore, does there, or does there not exist in nature, a *cheap and common solvent*, which can be applied to Flax, *in mass*, by operative farmers?

You live in a part of our country which is deeply interested in this question. You, more probably than any person with whom I am acquainted, can discover this *solvent*, (if it exist,) and the public attention having been much attracted to your publication, your recommendation would have a most extensive and salutary influence.

I therefore take the liberty to request your particular attention to this interesting subject. I feel confident that *the thing desired can be done*, but I cannot command the means of making the necessary experiments: I can only suggest hints, which may be useful.

Flax may, in mass, be subjected to the action of steam. This may of itself extract the glutinous matter, and sufficiently weaken the woody fibre, after being merely dried in the air: Will it fix the color of the plant? The Flax, before steaming, may be soaked in weak lye, with or without lime, or lime water, and with, or without soap suds, and urine. Near the coast, salt water, with and without the combinations before mentioned, may be useful.

Any of the chymical processes of bleaching, may, for ought I can perceive, be as well applied to Flax in mass, before it is broken and

dressed, as afterwards. A question must, however arise, respecting the expences of all the processes, compared with the value of the Flax when it has been prepared as an article of commerce.

I send you samples of Flax, which, as I understand, were prepared in Hill & Bundy's Machine. The *yellow* is from Flax which had not been rotted; and the *white* is the same article after being bleached, by means of soap suds, a weak solution of muriatic acid.

Your friend and obedient servant,

OLIVER WOLCOTT.

S. W. POMEROY, Esq.

Brighton, 14th July, 1822.

DEAR SIR,

Your highly valued favor of 29th ult. with samples of Flax, prepared in Hill & Bundy's machines, came to hand a few days since.

Soon after the publication of the "Essay Flax Husbandry," the Board of Trustees of the Massachusetts Agricultural Society, promulgated the offer of liberal rewards for the best experiments on the preparation of Flax, by *boiling steaming*, or *any other* than the usual mode. Though the quantity required was only 75 lb and the period for receiving it continued till the middle of January, none was exhibited and as the competition was not confined to local bounds, there is reason to believe that the publication of the invention by Messrs. Dey & McDonald, of a machine that would supersede the necessity of *any* preparation, and its successful operation confidently relied on, had an effect to paralyze all efforts of the kind.

From the best information I was able to collect, before my Essay went to press, I felt strong conviction that the machines of Hill & Bundy could not be made extensively useful in this country; and if their neglect in G. Britain except for employing infirm people and children in poor houses and cottages, was not sufficient, I have since received intelligence from a source entitled to confidence, that places the question beyond all doubt. An acquaintance with a gentleman of respectability, lately arrived from England, has furnished interesting facts connected with the present subject, some of which it may be well to state before I attempt a reply to your queries. This person has been extensively engaged in the manufacture of linen machinery at Leeds. He says that "spinning by hand is mostly abandoned; that last year about twenty thousand spindles were in operation at Leeds and its vicinity, which worked up about a thousand tons of flax for fabrics, from the coarsest sort, to those worth three shillings sterling per yard, at as cheap a rate (calculating length and breadth) as cotton is spun, and from 1 lb prepared in the usual way;—that no confidence is placed in the general utility of Hill & Bundy's machines—the price of dressing and bleaching by them being sixpence sterling per pound—about equal to the cost of the whole material as now used;—that "the advantage of work with bleached flax is of no great importance since the discovery and improvements in the process of bleaching with the *oxi muriate of lime*, which *linen*, even from dew rotted flax, is bleached nearly as cheap as cotton, and, if judiciously applied, without the least danger of injury to the article;"—it should also be considered that cloth made from *bleached* flax must be submitted

a similar process before it is made up for market.

I coincide in the opinion you have expressed, Sir, that "the extension of flax culture will greatly depend upon finding out a mode by which common farmers can extract the glutinous matter and weaken the woody fibre, so as to render the flax manageable by such operations or machines as can be introduced into common use," and sincerely regret my inability to adduce facts in answer to your question, does there or does there not exist in nature a cheap and common solvent which can be applied to flax, in mass, by operative farmers?" Feeling, like yourself, confident that "the thing desired can be done," and, although possessed of no data derived from experiments, as you have desired my opinion on the subject I shall submit a few remarks which will pass for what they may be worth.

The candor and liberality manifested by Mr. Dey, and the spirit with which he pursues his object, are to be admired; but admitting that it is most sanguine expectations will be realized in the successful operation of his machines for separating the fibre or harle from the stem of the plant, yet the very important process of cleansing it from the glutinous matter remains to be performed, and the question occurs, "can it this be done, in the large way, as cheap, and with much less hazard by common farmers with the raw stem, as with the fibres after they are separated?" I am inclined to believe that it can. The only objection is the expense and inconvenience of managing a more bulky article; but will not the dressed flax require equal labor in dividing it into minute parcels for the cleansing process, and uncommon care in banding and drying to prevent immense waste? By applying the solvent to the stem, it is reasonable to suppose that the "woody fibre" would be weakened to such a degree that much less power will be required to separate it, and of course less complicated and expensive machines.

It is not probable that the end we are seeking will be efficiently attained without the aid of heat. Steam even from pure water is a most powerful solvent; and I have great faith that with a proper menstruum, it may be successfully applied by common farmers. I am led to this conclusion by its operation with a perfectly simple apparatus in washing clothes—by far the readiest and most economical improvement yet discovered to disarm washing day of its terrors. It consists of a pot or boiler, with a close cover, into which a tin or leaden tube is inserted, and a tub or box with a similar cover. The clothes, after being wet and a little soap rubbed on the most soiled parts of them, are laid upon slats or helves in the tub or box, the tube is then connected with it, and the boiler nearly filled with water mixed with a weak solution of potash or ley from the leach tub, a fire is put under the boiler late in the afternoon, it boils during the evening and is left simmering till morning, when the clothes are taken out; and they must have been very foul to require any more labor than rinsing once or twice to make them perfectly clean. Now this process is managed by common house maids! What is to prevent them, the wives and daughters of farmers and even farmers themselves from attending to a similar process on a larger scale? I apprehend no danger from steam, in fixing any stain or color, that may be communicated by the plant.

We will now inquire for a menstruum within the reach of "common farmers," and it will not be necessary for the present object to combine the bleaching process, though it may follow in a considerable degree. I would here observe that there was an important omission in copying my Essay for the press, in quoting from the transactions of the Swedish Academy, of the application of birch ashes spread between the layers of flax before the salt water was turned on for boiling. Should such a process be found beneficial, sea water can be easily and cheaply imitated in the interior country.

Mr. Dey asserts that the materials he has discovered for cleaning and bleaching flax dressed by his machine, "are abundant in every farmer's house." I shall be much mistaken in my conjectures if ashes, salt, and perhaps lime, with vegetable acid or sour milk are not the principal constituents of his secret!

The substances used in bleaching will, I believe, either combined or separate, afford the best solvent within our knowledge, for the object in view; and acids are considered of primary and indispensable importance; they were formerly produced by the fermentation of rye meal or bran—sour milk was also used as extensively as it could be obtained. But it has been found that a weak solution of sulphuric acid answers the same purpose—is more convenient and much cheaper. Oil of vitriol in a highly concentrated state is now manufactured in Boston, and sold at not more than eight cents per pound—one pound of which is said to be sufficient to acidulate two hundred gallons of water. It is probable however that five pounds to that quantity of water, if thoroughly mixed, would not injure the material and accelerate the process.

When we reflect upon the rationale of the preparation of flax by the usual method of steeping in water, it appears that it is the acid produced by the acetous fermentation that dissolves the glutinous matter; the mere act of fermentation has no other effect than to give motion to the liquid, as has been demonstrated by eminent bleachers in Great Britain when comparing the effect of sulphuric acid with that produced by fermentation. It is true that by steeping, the putrid fermentation which rapidly follows the acetous, hastens the operation and more readily decomposes the woody fibre, but with manifest injury to the material! Now it requires ten or fourteen days to prepare flax by steeping, when done in cool weather as it should be; if this can be effected in half as many hours with sulphuric acid, even with the expense of heat, may it not be the cheapest solvent?

It should be kept in view, that there is a cellular oil in flax, which an alkaline ley destroys; this is apparent from the harshness of linen yarn that has been boiled in it—the decomposition of this oil may be necessary to the completely bleaching of fine goods, but it is important to retain it for sail cloth, as not only rendering it soft and pliable, but as a preservative against mildew. The steam from such ley however, is supposed not to produce that effect.

Whether the *oxi-muriate of lime*, the principal agent now used for bleaching, may be successfully applied as a solvent to the raw stem of flax, can be determined only by experiments; the materials for forming it are abundant and

cheap. A formula I met with some years ago, requires 60 lbs. of finely powdered quicklime and 30 lbs. of common salt to be mixed with 140 gallons of water in the receiver; into the distilling vessel is put 30 lbs. of salt, with 30 lbs. of manganese, which are to be well mixed, and 30 lbs. of oil of vitriol, diluted with the same weight of water, turned on. But I am told that great improvements have been made of late—that it is prepared in the dry way, which renders it conveniently portable, and is sold to the bleachers at a very cheap rate.*

Perhaps the simple *muriate of lime* would answer the purpose; in that case the expense would be much lessened, and the operation so simplified as to render it convenient to be used by operative farmers.

I should feel extremely happy, Sir, was it in my power, to institute a course of experiments agreeable to your suggestions, and which your partiality supposes me capable of performing; but a pressure of domestic avocations, together with preparations for an expected absence from home, of some months continuance in the autumn, wholly preclude such attempts. At the same time I beg you to rest assured that I shall always feel ambitious, to the extent of my ability, to co-operate for the promotion of AGRICULTURAL ECONOMY, with one who has devoted so great a portion of life for the advancement of the substantial interests of his country.

With respectful and sincere attachment,

I remain, Sir, your obedient servant,

S. W. POMEROY.

His Ex^y OLIVER WELCH, Jr.
Litchfield, Conn.

*The substance of the mode of preparing Bleaching Powder, according to as late an improvement as any we have seen, is as follows:

Oxygenated muriatic acid is capable of forming a compound with calcareous earth, and with the earths barytes, strontites, and magnesia, in the dry way, that is, without these earths being either suspended, or dissolved in water; and this is effected merely by bringing the oxygenated muriatic gas into contact with these earths in form of lumps, pieces, powder or paste, or into contact with mixtures of them, with such other bodies in the above forms, as do not impede or hinder their attraction for the acid. It has been found that the oxygenated muriates of lime, and of the earths mentioned above, thus formed, when mixed with water, possess the power of removing color from linen, cotton, and various other vegetable and animal substances, and have been profitably applied for that purpose. See *Reperory of Arts*, vol. xii, p. 1, sec. series.

If we mistake not, Sir Humphrey Davy, in one of his lectures has intimated that there is danger lest the caustic powers of oxy-muriate of lime should injure the texture of the material to be bleached; and he therefore prefers magnesia as one of the ingredients of bleaching powder to lime. Simple muriate of lime, as recommended by Mr. Pomeroy, deserves experiment, and perhaps lime slacked with sea water, or salt in solution with water, would be found useful. Care however is necessary not to apply caustic substances of too great strength, and in every case to thoroughly rinse the goods in pure water after every application of a bleaching substance, of the nature above described.

Ed. N. E. F.

Robbing Gardens.—Several indictments and convictions, of boys and youths, have taken place in various parts of the State, for violations of the statute made to prevent depredations upon orchards, gardens and fruit-yards.—Its penalties are very severe, and yet we are glad that a disposition prevails to enforce it.

Worcester Spy.

**CATTLE SHOW,
EXHIBITION OF MANUFACTURES, AND
PLOUGHING MATCH,
At Worcester, on Wednesday, September 25, 1822.**

The Trustees of the Worcester County Agricultural Society, propose to their fellow citizens a Cattle Show, Ploughing Match, and Exhibition of Manufactures, at Worcester, on WEDNESDAY, the 25th day of September next, at 9 o'clock, A. M.—and they have the pleasure of offering the following liberal Premiums, much increased in amount from the last year :

For the best Bull, not less than one year old	\$15
For the next best	10
For the best Bull Calf, from 4 to 12 months old	6
For the next best	4
For the best Milch Cow, not less than three years old, and from a stock of not less than five Cows kept together	15
For the best Milch Cow, not less than three years old, and from a stock of not less than three Cows kept together	10
For the next best Milch Cow, whether kept alone or with others	8
For the best Heifer from 1 to 3 years old past	6
For the next best	5
For the best Heifer Calf from 4 to 12 months old	5
For the next best	4
For the best pair of Working Oxen, not less than four years old, regard being had to the strength, equality of match, and docility of the cattle, as well as to their size and appearance	15
For the next best	12
For the next best	10
For the next best	5
For the best pair of four years old Steers, not offered for work	10
For the best pair of three years old Steers	8
For the next best	5
For the best pair of two years old Steers	7
For the next best	4
For the best pair of yearling Steers	5
For the next best	3
For the best Ox fitted for slaughter, regard being had to the mode and expense of fattening	15
For the next best	10
For the best Merino Ram, regard being had both to fleece and size	10
For the next best	5
For the best Merino Ewes, not less than four in number	10
For the next best do.	5
For the best two Merino Wethers	4
For the best lot of mixed Merino Sheep, not less than five in number, either Ewes or Wethers, regard being had to the quality of fleece for the grade	5
For the best Native Ram	5
For the best Native Ewes, not less than four in number	4
For the best Boar, not less than six months old, nor more than two years and six months old	10
For the best Breeding Sow, not less than one year old	6
For the best weaned Pigs, not less than four in number	4

None of the animals will be entitled to Premiums unless they are wholly the product of the County, excepting, that with a view to encourage the introduction of improved Stock, the Trustees will pay the premiums which may be awarded for Bulls, Rams, and Boars, raised within the State and brought into the County at least four months before the day of Exhibition, upon receiving satisfactory security that they shall be kept for use within the County at least one year next after.

In awarding the Premiums upon all Stock, regard will be had to the manner and expense of raising and keeping. And the owner will be required to give a satisfactory account thereof

to the appropriate Committee on the day of Exhibition—as it is the intention of the Trustees to encourage that Stock, which not only may appear best at the Show, but which, in reference to the cost, is most profitable to the Farmer.

The Trustees with a view to the most liberal encouragement of the Citizens of the County who live remote from the place of Exhibition, propose to increase the rate of compensation for travel to eight cents per mile, to the owners of such animals as obtain premiums, and which are brought or driven more than ten miles, computing from the place from which the animals come to the place of the Show.

No animal for which to any owner one premium shall have been awarded, shall be considered a subject for any future premium of the Society, except it be for qualities different from those for which the former premium was awarded.

Persons intending to offer any species of Stock for premium, must give notice thereof, either by letter, post paid, or by personal application to the Recording Secretary, on or before the 21th of September, (the day preceding the Show) at 9 o'clock in the evening, requesting him to enter his application, so that Tickets for the Pens may be ready by 8 o'clock the next morning. The difficulty of making arrangements for the proper accommodation of the different species of Stock, without such previous notice, renders a strict enforcement of this rule indispensable—and no person will be considered as a competitor, who shall not have made such application for entry, on or before the time above specified.

In all cases where the age of animals is mentioned, the applicant must file his own certificate, or that of some other respectable individual, who personally knows the fact, that they are of the age for which they are entered, and also that they are the product of the County.

DOMESTIC MANUFACTURES.

To the person or Corporation who shall exhibit the best double set of Machine Cards	\$20
The best superfine Broadcloth, dyed in the Wool, not less than six quarters wide, exclusive of the list, and 20 yards in length	15
The best superfine Cassimere, dyed in the wool, not less than three quarters wide, and 20 yards in length	10
The best Carpeting four quarters wide, and not less than 30 yards in length	15
The best Carpeting three quarters wide, and not less than 30 yards in length	10
The best sole Leather not less than 100 lbs.	10
The best manufactured Calf-Skins not less than 12 in number	10
The best manufactured Morocco Leather of Goat Skins, not less than six in number	6

TO THE PERSON WHO SHALL EXHIBIT OF HOUSEHOLD MANUFACTURE.

The best Woollen Cloth, not less than three quarters wide, and 20 yards in length	\$8
The next best	5
The best Flannel not less than 7-8ths wide and 20 yards in length	10
The next best	5
The best Shirting Cloth of linen warp and tow or cotton filling 7-8ths wide and 20 yds. in length, and bleached,	5
The next best	3
The best Woollen Coverlid not less than 2 1-2 yards wide	4
The best Linen or tow Diaper five quarters wide and not less than 20 yards in length	8
The best Linen or tow Diaper four quarters wide, and not less than 20 yards in length	5

The best Woollen half stockings for men, not less than two pairs	
The best Specimen of Sewing Silk of assorted colors, and not less than two pounds in quantity	1
The best Butter not less than 30 lbs.	
The next best	
The next best	
The best lot of Cheese not less than 100 lbs. of the manufacture of the same person	1
The next best	

[The specimens of Butter and Cheese must be accompanied with a particular account of the manner in which the same was made and preserved, and the butter must be exhibited in plain unpainted boxes or tubs.]

Every article of manufacture offered for Premium, must be entered with the Recording Secretary, and delivered to the person appointed to receive them, before 11 o'clock in the forenoon of the day preceding the Exhibition. And all manufactures, when presented, must have a private mark, and any public or known mark must be completely concealed, so as not to be seen or known by the Committee—no must the Proprietors be present when they are examined; and the goods must not be removed until 5 o'clock of the day of Exhibition, unless by permission of the Committee of Arrangements: in default of either of which requisitions, the articles will not be entitled to consideration or premium.

PLOUGHING MATCH.

The Trustees also propose to unite with the Cattle Show, a PLOUGHING MATCH, on the same day, and to give Premiums to the owners and Ploughmen of the four Ploughs, which shall be adjudged by a competent Committee, to have performed the best work with the least expense of labor, upon a plot of ground not exceeding one-fourth of an acre, with a Plough drawn by one or more yoke of Oxen. In the three first cases, if there be no driver, both sums for ploughman and driver to be awarded to the Ploughman.

First Plough,	\$10	Third Plough,	\$6
Ploughman,	5	Ploughman,	3
Driver,	3	Driver,	1
Second Plough,	8	Fourth Plough,	4
Ploughman,	4	Ploughman,	2
Driver,	2		

As the great object of this part of the Exhibition is to excite emulation in the use and construction of the most important instrument of Agriculture, the Plough, the competitors in the Ploughing Match must own their respective Ploughs and Cattle, and the Ploughman, if he be not the owner, must be a man employed on the owner's farm. Those persons who design to become competitors must give notice in writing to the Recording Secretary, on or before the 15th day of September next, that suitable ground may be obtained, the proper number of Lots measured and marked out, and the requisite arrangements made for the occasion. The Ploughs must be on the ground designated, ready to start together precisely at 9 o'clock, A. M. as this will be the first public business of the day attended to. Such arrangements will be made that the Cattle engaged in the Ploughing Match, and which may also be entered for premiums as working oxen, may have opportunity to be well refreshed before they are subjected to examination and trial. Cattle or Ploughs, which have heretofore obtained a premium in the Ploughing Match, will not be entitled again to a premium unless for excelling in a higher degree.

Competitors for Premiums of every description will be held to a rigid compliance with the foregoing Rules, as well as such other Rules and Regulations as shall be published by the respective committees of Premiums hereafter to be appointed and the Committee of Arrangements for the occasion.

In cases where, for want of competition, the claimants upon a literal construction of these proposals might be entitled to premiums, the Trustees shall be at liberty to reject the claim, unless the animal, or manufactured article, is of superior quality and value.

No person will be allowed two premiums, as for the best and next best of an animal or article of the same description, it being the object of the Trustees to encourage competition, by distributing premiums, as much as possible, among the deserving; and no owner of any number of premium animals will be entitled to more than one allowance for travel.

From the premiums awarded there will be discounted twenty-five per cent. in the payment to those persons who, at the time, are not Members of the Society; and no premium will be awarded for animals to any person who, at the time, is not the owner, nor for manufactured articles, unless they were manufactured within the County—and no premium will be paid to any person who is not an inhabitant of the County.

Premiums will be paid within 30 days after they are awarded; but if not demanded within four months, they will be considered relinquished, and the amount will be added to the funds of the Society.

LEVI LINCOLN,	} Committee of Premiums.
BENJAMIN ADAMS,	
LOVETT PETERS,	
NATHANIEL P. DENNY,	
DANIEL TENNEY,	

Worcester, April 15, 1822.

FOR THE NEW ENGLAND FARMER.

POTATOES.

Having heard many different opinions respecting the best method of preparing seed potatoes for planting, some saying that it is best to plant large ones whole, others that small ones are equally as good, while others say they will produce most to cut them in pieces, with one eye in each piece, or only eyes cut out of large potatoes they say will do well, and lastly some affirm that the parings taken off when preparing them for the pot will produce a good crop.

About the beginning of May, 1821, I prepared a small piece of land, on which I planted seven rows with four hills in each row, as follows:—

- 1st Row—One potatoe weighing about 7 oz. in each hill.
- 2d—One of the same size, cut in four pieces, in each hill.
- 3d—Three whole potatoes, weighing each 2 oz. in each hill.
- 4th—Six of the same size cut into quarters, and six quarters placed in each hill.
- 5th—Some middling large potatoes cut into pieces, with one eye in each piece, and five pieces put in each hill.
- 6th—Cut 24 eyes out of large potatoes, and put six in a hill.

7th—Put a small handful of parings in each hill.

The quality of the land was equal, not rich, no manure was applied, the rows all came up well, and were all hoed and treated alike thro' the summer.

About the beginning of October I had them taken up, and the produce was as follows:

The 1st row yielded 17 lb. 7 oz.

2d	do.	22	7
3d	do.	10	7
4th	do.	14	7
5th	do.	16	11
6th	do.	11	00
7th	do.	10	00

The hills stood three feet distant each way, which makes 4840 in an acre. Allowing a bushel of potatoes to weigh 60 lbs. the products of the different rows would be nearly as follows:

1st row, 350 bushels per acre.	
2d row, 450	5th row, 339
3d row, 210	6th row, 222
4th row, 307	7th row, 202

It is evident, from the above statement, that large potatoes are much better for seed than small ones, and that it is better to cut them than to plant them whole.

About the same time I took a quantity of middling large potatoes, and cut off the but and top ends from each, and cut the middle pieces into quarters, and planted a row with butts, another row with tops, and the third with middles, and placed five pieces in each hill throughout the whole. I did not weigh nor measure the produce, but found that the middle pieces produced much the largest crop. The produce of the other two rows were about equal; by which it appears that to reject both ends and plant the middles only, will produce much the best crop. J. W.

Ryegate, Vt. Sept. 2, 1822.

From the National Intelligencer.

To Medical Gentlemen.

I have been lately amusing myself with a work published by Mr. J. L. Chabert, at New Orleans, entitled "Medical reflections on the malady vulgarly called Yellow Fever;" to which he gives the new denomination of *Spasmodico Lipyriene*, or spasmodic burning fever. It is full of information respecting the symptoms of this terrible disorder, and of acute remarks on the suggestions of all prior observers. Mr. Chabert states, that by numerous dissections, he has found that the liver is not affected. The bleeding of the nose and inflammations of the throat, &c. are the first diagnostics, and after that a delusive ease succeeds, and then the black vomit.

Query.—Whether animalculæ inhaled do not first cause the spasms by inflammation, and whether mortification does not ensue? Persons not acclimated are the greatest sufferers. I have seen Europeans, arriving in Asia, when stung by musketoes, suffer inflammation in an extraordinary manner. May not the same effect be produced by inhaling insects, imperceptible to the naked eye, by the nose and throat? That putrid matter will produce insects, has been proved by various experiments; and I have read, in your valuable widely circulated paper, that magnifying glasses have been constructed to discover insects in the lungs of those who have died of consumption.

I am not a medical practitioner, and hope to be excused for venturing to submit this hint to the scientific. A boy darting a random arrow once made it pass through a small ring which practised archers in vain attempted to shoot through. Thus, I, by a guess, may give a beneficial idea, which superior judgments may improve upon. H.

NOTE.—Let the doctrine of animalculæ being in the air, receive due consideration.—Iron, Magnesia and Salts, may be in the most transparent water. Air is composed, we know, of fixed portions of hydrogen, azote and oxygen, but flies, &c. may exist in it. Animation may be in the minutest objects; the microscope discloses the wonders of our Creator in the smallest degree.

ON CATCHING COLD.

As there were few men more attentive to tracing the cause of natural effects, or more ready and ingenious in accounting for them than Dr. Franklin, his opinions on any such subjects are therefore deserving our special attention. Thus, on the subject of catching cold, he alleged, that instead of a cold being contracted by the body's being exposed to some external cause which may stop the insensible perspiration, such as cold air blowing partially on some part of the body, its continuing during some time wet, &c. a feast, or some excess in eating or drinking will be generally found to have preceded. In confirmation of this opinion, he observed, that those who led temperate lives seldom caught cold, even though their constitutions and habits of body might seem little able to withstand the effects of such causes.

I was a witness of what I thought a singular instance of the truth of this opinion. Upon my mentioning it to a gentleman, who eats no animal food, and drinks no fermented liquor or spirits, he said he would give it a fair trial. He accordingly, early on the first dewy summer morning, walked among long grass till his feet and legs were perfectly wet, and continued out of doors from 6 till 8, and when he came in to breakfast could not be prevailed upon to have dry shoes and stockings till he returned to dress at noon. No cold ensued, though wet feet are reckoned among the most frequent causes of taking cold. He afterwards thanked me much for freeing him from many restraints founded, as he now experienced, on prejudice.

Dr. Franklin remarked, that those who eat no suppers, especially after plentiful dinners, were much less liable to catch cold, for they thereby avoided adding a quantity of indigested juice with what are, in some degree, in a digested state. They who make their supper their principal meal do not suffer by it, because the stomach being pretty empty, an improper mixture of juices does not enter the lacteals.

SPONTANEOUS COMBUSTION.

On Friday afternoon the barn of Mr. George Shute, of Malden, containing ten tons of hay, all his farming utensils, and a chaise, was consumed by fire. Mr. S. with another man, was at work in a field near the barn, when the fire burst out; but nothing could be done to save it. This is another instance of spontaneous combustion, proceeding probably from the too green or damp state of the hay, as it is almost certain there had been no fire conveyed to the barn, by any direct or accidental means.

From Niles' Register.

FLAX

Another machine has been invented by Samuel Davidson, of Romulus, N. Y. for dressing flax. Its whole cost, including the patent right, is only forty dollars. It has been tried by many of the most respectable farmers. They estimate the saving in the labor at three fourths, and the saving in flax at one fifth, compared with the common mode; while it leaves the texture of the thread unbroken. By the use of this machine the process of *rotting* may be dispensed with, as it will answer for dressing the flax either with or without rotting.

This improvement promises to be extensively useful—its price is small that every neighborhood may easily have a machine. Flax is an article of easy cultivation and great product, if the process of rotting and usual way of cleaning it can be dispensed with, and must become an important staple to the people of the interior for home use, and transport to the seaboard, &c. A pound of flax may be carried any given distance as readily as a pound of corn, pork, &c. The cost of transportation will be the same; but the amount of that cost as to the relative value of the article, will be essentially different. The seed, too, if crushed and made into oil, will always find a ready market, and better pay charges for carriage than any sort of provisions that our farmers can raise in the interior. Oil mills may be erected at a small expense, and would yield large profits to their owners, if the supply of seed were abundant, in any part of our country west of the mountains.

We feel both publicly and personally interested in the cultivation of flax and the use of flaxen goods—publicly, because it will add much to the national prosperity; privately, because we cannot have good *paper* without flaxen rags to make it of.

From the Montreal Gazette of August 31.

AGRICULTURAL REPORT FOR AUGUST.

The cutting of grain became common from the 10th to the 15th of the month; about the 19th the weather was very unfavorable for rural or harvest affairs; very heavy rains with warm growing weather, which lasted some time, have done considerable damage to Grain lying on the ground (the common way in this country) as it has rendered the straw black, and caused the crop to spring or sprout. If the Canadian farmers would bind and shock their crops as they cut them, like old country farmers, it would be a great saving of fodder to them in rainy seasons; indeed we have had more wet weather this summer than in the three preceding.

Towards the latter end of the month, we had excellent dry days, with a strong or good breeze which has enabled the farmers to house a great part of their crops, and a few fine days will finish the bulk of the harvest.

Grass seeds have generally taken well and after grass looks fine.

Of Turnips little is heard, but Mangel Wurtzel is much recommended by all who have raised it; the quantity on an acre is said to be very great, and it is not subject to be injured by the fly or grasshoppers.

Cutting Hay on natural wet meadows has been attended with much trouble, and some very extensive fields are still uncut, being overflowed with water.

Stock of all kinds is in excellent condition; milch cows are very scarce, bees have thrived well this summer, and it is a matter of surprise and regret that they are not more generally kept both for the profit they give, and the good example they set before us. Laborers are in abundance, good reapers have been commonly paid from 1s. 6d. to 1s. 10d. per day.

A pair of the beautiful and gigantic nondescript Elks, known by the Indians of the Upper Missouri (where they have been lately discovered) by the name of Wapetti, arrived here on Monday se'n-night on their way to London. These noble animals are the size of the horse, with immense spreading horns; their form the most perfect model of strength and beauty, combining the muscular strength of the race horse, with the lightness and agility of the greyhound; are capable, with ease, of drawing a carriage or carrying a person more than twenty miles an hour. They are perfectly domesticated, and of the most amiable and gentle disposition. Their flesh is esteemed the finest of venison; and as the female is on the point of producing young, no doubt is entertained of adding this most noble and interesting quadruped to our stock of domestic animals. They will be exhibited for a few days at Stokes' Rooms, next door to the Athenaeum, in Church street.—*London paper.*

NEW ENGLAND FARMER.

BOSTON.—SATURDAY, SEPT. 14, 1822.

TO READERS, CORRESPONDENTS, WELL-WISHERS, ADVISERS, &c. &c.

We have been eminently favored, since the commencement of the New England Farmer, with a multitude of counsellors, who have from time to time volunteered opinions respecting the course it was best for us to pursue in conducting the publication. But, it unfortunately so happens that but rarely any two of our monitors agree in their precepts; and as we cannot, at the same moment, move in a great variety of opposite directions, we shall take in good part, what was doubtless well meant, but hope to be excused, if we do not exactly conform to rules and regulations, which do not always accord with each other, any better than with our own views of the subjects to which they relate. Still we are happy to receive counsel, though for the reasons above mentioned we cannot always comply with it. Besides, our advisers, surely, do not wish to be our controllers; and if they will kindly continue to *shed light on our paths*, we will spare them the trouble of *directing our feet*.

The gentleman who advises us to write a "System of Georgicks after the manner of Virgil," borrowing hints from the "elegant works of Darwin," &c. is respectfully informed that if we had talents, we have not time to spare for such a purpose. A number of years (certainly not less than nine according to Horace) would be requisite to complete such a work: and by the time it was finished, a considerable part would probably become obsolete by improvements which are every day unfolding. We believe moreover, that the principles of science, and the details of art, are, generally speaking, better given in plain prose than in the "linked sweetness" of Dr. Darwin's most mellifluous modulations. For instance, Dr. Darwin's poetical description of the Steam Engine would hardly serve as a specification to enable a workman to build a machine of the kind; and should even a greater than Darwin undertake to give versified accounts of many of the

most useful modern improvements in agriculture, ninety nine in a hundred of the cultivators of the soil

"Would read, and read, then raise their eyes in doubt,
"And gravely ask—*Pray what's all this about?*"

Georgicks, and poetical descriptions of rural occupations and amusements, are, however, very pretty articles, and we should be glad of an assortment for the benefit of some of our readers, who like our correspondent alluded to, have taste enough to read and relish such things. Our attention must, however, for the present, be more directed to the wants of the many than the taste of a few.

A gentleman from Vermont writes to us as follows—
"We have tried your receipt for using elder juice [see page 3,] in a large dairy, on two or three cheeses that were much cracked, and from which it was difficult to keep the flies that produce skippers. The experiment answers perfectly—the flies do not even approach that part of the pantry. No doubt it will answer other valuable purposes."

The gentleman who has given us an account of his experiments with Seed Potatoes will accept our thanks, and is requested to continue his favors.

The articles on "Preparing Flax," in the preceding pages, merit much attention from all who feel an interest in developing the natural resources of our country. We hope new lights will be elicited from actual experiments, whose details and results we should be happy to publish.

ON SAVING AND MAKING THE MOST OF MANURE.

No soil will always prove productive without manure. Though naturally fertile as the garden of Eden, if it is always giving and never receiving, it will at length become as barren as a desert. Manure then, in farming, is all in all. It is that without which there will soon be

"Nothing in the house—nor in the barn neither."

Particular spots, like Egypt, and other alluvial or intervale lands, which are annually overflowed, derive manure from the bountiful hand of nature, and cannot be exhausted by bad husbandry. Some soils likewise are not easily exhausted, and are easily recruited, in consequence of being so organized as to attract from air and water the principles of fertility.

But if the soil is *naturally barren* it may be *made fertile*. If land in its natural state be good for nothing but to hold the globe together (as some have quaintly expressed it) it may be made abundantly fruitful by being mixed with certain earths, composts, dung, &c. together with a judicious rotation of crops. "In the Pays de Waes, in Flanders, sand is cultivated to great perfection. The soil of that district, which was originally a barren white sand, has been converted into a most fertile loam."* This was effected by suitable applications of clay, marle, vegetable and animal manure, deep ploughing, turning in green crops, &c. The most barren pitch-pine or shrub-oak plains in New England may be rendered fertile by similar processes. And in many instances it is better thus to convert a piece of poor land, which is favorably situated as regards government, the state of society, the market, &c. into an excellent farm, than to seek a farm in the wilderness, where there is neither government, society, nor any of the comforts and enjoyments of civilized life; and which, with all these disadvantages, cannot be rendered productive without a great deal of labor and expense.

The principal agent in converting a barren to a fruitful soil must be manure; either fossil manure,

* Code of Agriculture.

(such as the earths, salts and alkalis) or animal and vegetable manure, composed of decayed and decaying animal and vegetable substances. Our observations, at present, will be confined to the latter kind.

A controversy has existed for some years, relative to the degree of fermentation which manure ought to undergo, before it is applied to the soil. Some agriculturists are advocates for long, fresh, or unfermented manure, and others contend that it should never be spread on the field till the fibrous texture of the vegetable matter is entirely broken down, and it becomes perfectly cold, and so soft that it may be easily cut by a spade.

Sir Humphrey Davy, whose authority, on subjects of this kind, should not lightly be called in question, observes, "If the pure dung of cattle is to be used as manure there seems no reason why it should be made to ferment except in the soil; or if suffered to ferment it should be only in a very slight degree. The grass in the neighborhood of recently voided dung is always coarse and dark green; some persons have attributed this to a noxious quality in unfermented dung; but it seems to be rather the result of an excess of food furnished to the plants.

"During the violent fermentation, which is necessary for reducing farm-yard manure to the state in which it is called *short muck*, not only a large quantity of fluid, but likewise of gaseous matter is lost; so much so, that the dung is reduced one half or two thirds in weight; and the principal elastic matter disengaged, in carbonic acid with some ammonia; and both of these, if retained by the moisture in the soil, are capable of becoming useful nourishment of plants.

"It is usual to carry straw that can be employed for no other purpose to the dunghill to ferment and decompose; but it is worth an experiment whether it may not be more economically applied, when chopped small by a proper machine, and kept dry till it is ploughed in for the use of a crop. In this case, though it would decompose much more slowly, and produce less effect at first, yet its influence would be more lasting.

The Farmer's Magazine, a British periodical work of celebrity, opposes this theory of Sir Humphrey Davy. The conductor says that he "has known dung and litter, which had been turned down fresh in the furrow appear the next spring without any visible change. Of course it must have lain dormant, without contributing to the growth of the plants. Dry wheat straw was regularly laid in the hollow of drills, and potatoes planted above the straw. Both were then covered with earth; but very few of the potatoes ever came above ground, and these only towards the end of autumn. When the field was afterwards ploughed, the straw seemed to have undergone no change; nor did it convey any sensible benefit to future crops. Had the same straw been previously subjected to only a moderate fermentation in the dung-yard, there can be no doubt but its effects would have been very different."

The Hon. Richard Peters, of Penn. is likewise opposed to the use of unfermented manures. He observes in a letter to the Hon. Mr. Quincy, that "straw muck cannot be regularly spread. The animal matter is not mixed with the straw, but lies in masses *per se* [by itself.] This over ferments, and throws up your crops in bunches or spots, over luxuriantly; and it lays, smuts, or mildews. The earth prevents fermentation in the straw; and this dry rots, and becomes a *caput mortuum*, [dead useless mass.] I have experienced this effect over and over again. I think reasonably fermented dung goes further. All the straw and additional matter is impregnated, and being decomposed, spreads with the animal ejections more equally, and to

infinitely better advantage, assisting your crops in more points, and operating efficiently on the whole."

Mr. Robert Smith, President of the Maryland Agricultural Society, appears to entertain a different opinion on this subject. This gentleman in an Address to the Maryland Agricultural Society observes, "with respect to stable dung I shall, for the present, content myself by barely suggesting that my experience strongly inclines me to the opinion that, however long, it ought to be ploughed into the ground, without any previous stirring, and as soon as practicable after it shall have been taken from the farm yard."

* See *Mass. Agricultural Repository*, vol. iv, p. 333.

† See *American Farmer*, vol. iv, p. 82.

(TO BE CONTINUED.)

The Essex Agricultural Exhibition will be at Teppesfield, the 2d of October. Over 600 dollars will be awarded in premiums. Address by the Rev. Dr. Eaton of Boxford. Dinner tickets fixed at 50 cents.—Further particulars respecting this Exhibition postponed for want of room to our next.

The orchard of Mr. Stephen Osborn, of Danvers, has produced an apple this season, weighing *nineteen and a half ounces*!

More magnificent yet!—We yesterday (says the Salem Gazette of Tuesday,) received an apple which grew on a tree in Col. Pickman's orchard, South fields, under the care of that industrious and persevering husbandman, Mr. Erastus Ware, which weighed *twenty ounces*, large.

Mr. B. V. Clench, of New York, has raised a *cucumber* this year, measuring 23 inches in length, 12 in circumference, and weighing 5 lbs. 12 oz.

In a letter from James Whiton, Esq. of Lee, to the Editor of the Berkshire Star, he says, "I have raised the present season, on one acre of land belonging to my farm, *eighty-five bushels of oats*."

Munificent.—The honorable Stephen Van Rensselaer has engaged Prof. A. Eaton, of Troy, to take a Geological and Agricultural Survey of the Great Canal route from Albany to Buffalo, a distance of 360 miles. The survey is to include the breadth of ten miles.

A most horrid transaction took place at the jail in this city on Friday night, September 6, about 12 o'clock. It appears that Howard Trask, Francis Durgen and John Newman were all confined in one room. At about midnight, Trask got up and went to Newman's bed, where he was asleep, and without giving him the least notice of his intention, with a sharp instrument of some kind he cut open his stomach. Durgen who was in another part of the room awoke, and coming to Newman's assistance was met by Trask, who stabbed him in the breast in several places, and he would probably have inhumanly butchered them both had not their cries brought the watchmen to their assistance. They are both considered dangerously wounded. Trask is the person who was concerned with Green at the State Prison riot in October last, and was acquitted on the ground of insanity.—Newman and Durgen are confined for theft. Trask refused to answer any questions put to him respecting the affair; nor hath the instrument used by him as yet been discovered.—*Evening Gazette*.

Sickness.—Within the last three weeks, nine persons have died in Guildhall, Vt. and eleven in Northumberland, N. H. of Dysentery. The extraordinary mortality is among children from six months to twelve years old. And although the disease is called the dysentery, yet it puts on a different appearance from the common and ordinary disorder known by that name. The public may expect hereafter a more particular account of the progress of this disease, and the treatment of it, by some of the Physicians attending on it.

Octavius Pickering, Esq. is appointed by the Governor and Council, Reporter of the Decisions of the Supreme Judicial Court of this Commonwealth, in the place of Mr. Tyng, who has resigned the office.

YELLOW FEVER AT NEW YORK.

On Sunday last 4, Monday 4, Tuesday 6, Wednesday 11 cases. There has been about one hundred deaths since the commencement of the fever.

The Board of Health announced on Tuesday the death by yellow fever of Mr. George Gilbert Warren, of New York, at one of the most frequented public houses in town. He arrived in town on the 23d ult. and was taken ill on the 3d inst. and died on the morning of the 9th. It is by no means remarkable that a single individual, of the great number of persons who have come to town directly from the diseased district in New York, should have sickened here of the fever, nor does it afford any ground for alarm to those who have not been in that district. It is a very satisfactory proof of the favorable change of the public opinions in relation to this disease, that this gentleman was suffered to remain where he could have the most comfortable accommodations, and the best attendance, and that none of the numerous lodgers in the very respectable house where he sickened, have in consequence fled from their quarters.—*Daily Advertiser*.

A second Lambert!—There is a gentleman living in the town of Centerharbour, in this State, Mr. Caleb Towle, a wealthy and respectable farmer, whose height is 5 feet 10 inches, girth 7 feet, and weight 515 pounds. He is obliged to use a second chair for the more bulky part of his frame.—*Portsmouth Journal*.

Dartmouth College.—On Thursday, the 23d ult. the prize declamations took place at this Seminary. The prizes were awarded to George K. Pemroy, of Boston, Michael Lovell, George Boardman, and John Chamberlain, members of the College.

At 11 o'clock, the exercises of the Phi Beta Kappa commenced; when an elegant and classical oration was delivered by Professor Oliver, late of Salem. It is said to have been written in a style of neat simplicity and perspicuity seldom surpassed.—The Society elected the Hon. Daniel Webster, of Boston, for their President during the ensuing year.—*ibid*.

AGRICULTURAL NOTICE.

THE Trustees of the Plymouth County Agricultural Society, having agreed to offer in premiums, the sum granted by the government, for that purpose, and also the income of the funds belonging to said society, do hereby give notice, that there will be a CATTLE SHOW, and EXHIBITION OF MANUFACTURES, &c. &c. at South Bridgewater, on **TUESDAY, the Eighth day of October next**, at 9 o'clock, A.M.—and that an Address is expected on the occasion, by Hector Orr, Esq.

Candidates for premiums are requested to communicate their intentions to Bartholomew Brown, or Daniel Mitchell, Esq's. previous to the first day of said Oct'r.

DANIEL HOWARD, President.

West Bridgewater, Sept. 1822.

SPEED THE PLOUGH.

THE subscriber (late President of the Berkshire Agricultural Society) convinced of the importance of disseminating improved Agricultural Implements, and that it can only be effected in an efficient manner, thro' the medium of persons who are *practically* conversant with, and able to judge of their true merits from experience, proposes to open a REPOSITORY for the sale, on commission, of all kinds of Agricultural Implements and Machinery.—*Likewise*, for Prime Seeds, and approved Agricultural Books.

It being the object of the subscriber to bring into use such articles only as possess real merit, it is proper to remark, that he will offer none for sale but such as he may be really acquainted with, or which he shall have previously tested by experience.

Letters, *post paid*, will be duly attended to, and all favors gratefully acknowledged.

THOMAS MELVILL, Jr.

Pittsfield, (Berkshire Co.) Sept. 10, 1822.

SUBSCRIBERS to the NEW ENGLAND FARMER who wish to be considered as paying *in advance* for the first Vol. must forward us \$2.50 on or before the first day of October next. All who neglect paying at that time will be charged \$3. We give this reasonable notice that none may complain, as this rule will be strictly adhered to. New subscribers can be furnished with complete files from the commencement. Sept. 7,

The following is but little inferior to Thomson's famous "Palemon and Lavinia."

THE MILK MAID AND HER LOVER.

Who hath not heard
Of Patty, the fair milk maid? Beautiful
As an Arcadian nymph; upon her brow
Sat virgin modesty, while in her eyes
Young sensibility began to play
With innocence. Her waving locks fell down
On either side her face in careless curls,
Shading the tender blushes in her cheek.
Her breath was sweeter than the morning gale
Stol'n from the rose or violet's dewy leaves.
Her ivory teeth appear'd in even rows,
Through lips of living coral. When she spoke
Her features wore intelligence; her words
Were soft, with such a smile accompanied,
As lighted in her face resistless charms.
Her polish'd neck rose rounding from her breast
With pleasing elegance!
Her shape was moulded by the hand of ease,
Exact proportion harmoniz'd her frame;
Her grace, following her steps, with secret art
Stole into all her motions. There she walk'd
In sweet simplicity; a snow white pail
Hung on her arm, the symbol of her skill
In that fair province of the rural state
The dairy; source of more delicious bowls
Than Bacchus from his choicest vintage boasts.

How great the power of beauty! the rude swains
Grew civil at her sight; and gaping crowds,
Wrapt in astonishment, with transport gaze,
Whispering her praises in each other's ear.
As when a gentle breeze, borne through the grove
With quick vibration shakes the trembling leaves,
And hushing murmurs run from tree to tree;
So ran a spreading whisper through the crowd.
Young Thyriss hearing, turn'd aside his head,
And soon the pleasing wonder caught his eye.
Full in the prime of youth, the joyful heir
Of numerous acres, a large freehold farm,
Thyriss as yet from beauty felt no pain,
Had seen no virgin he could wish to make
His wedded partner. Now his beating heart
Feels new emotion; now his fixed eye,
With fervent rapture dwelling on her charms,
Drinks in delicious draughts of new born love.
No rest the night, no peace the following day
Brought to his struggling heart; her beauteous form,
Her fair perfections, playing on his mind,
With pleasing anguish torture him. In vain
He strives to tear her image from his breast;
Each little grace, each dear bewitching look,
Return triumphant, breaking his resolves,
And binding all his soul a slave to love.

Ah! little did he know, alas! the while,
Poor Patty's tender heart in mutual pain,
Long, long for him had heav'd the secret sigh.
For him she drest, for him the pleasing arts
She studied, and for him she wish'd to live.
But her low fortunes, nursing sad despair,
Check'd her young hopes, nor durst her modest eyes
Indulge the smallest glances of her flame,
Lest curious malice, like a watchful spy,
Should catch the secret, and with taunts reveal.
Judge then the sweet surprise, when she at length
Beheld him all irrevocably approach,
And gently taking her fair trembling hand
Breathe these soft words into her listening ear.
"O Patty! dearest maid, whose beauteous form
Dwells in my breast, and charms my soul to love,
Accept my vows; accept a faithful heart,
Which from this hour devotes itself to thee:

"Wealth has no relish, life can give no joy,
"If you forbid my hope to call you mine."

Ah! who the sudden tumult can describe
Of struggling passions rising in her breast?
Hope, fear, confusion, modesty and love
Oppress her laboring soul;—she strove to speak,
But the faint accents died upon her tongue:
Her fears prevented utterance:—at length
"Can Thyriss mock my poverty? Can he
"Be so unkind? O no! yet I, alas,
"Too humble e'en to hope?"—No more she said;
But gently, as if half unwilling, stole
Her hand from his; and with sweet modesty,
Casting a look of diffidence and fear,
To hide her blushes, silently withdrew.
But Thyriss read with rapture in her eyes
The language of her soul. He follow'd, woo'd
And won her for his wife. His loving herds
Soon call her mistress; soon their milky streams
Coagulated, rise in circling piles
Of harden'd curd; and all the dairies round
To her sweet butter yield superior praise.

INDUSTRY AND FRUGALITY.

Extracts from Dr. Franklin's writings, and which cannot be too often read, nor too long remembered.

If we are industrious, we shall never starve; for at the working man's house, hunger looks in, but dares not enter. Nor will the bailiff or the constable enter, for "Industry pays debts, while despair increaseth them." What though you have found no treasure, nor has any rich relation left you a legacy, "diligence is the mother of good luck, and God gives all things to industry. Then plough deep while sluggards sleep, and you shall have corn to sell and to keep. The diligent spinner has good clothes, and now I have a sheep and a cow, every body bids me good morrow."

Remember what poor Richard says, "Buy what thou hast no need of and ere long thou shalt sell thy necessities." And again. "At a great pennyworth pause a while;" he means, perhaps, that the cheapness is apparent only, and not real; or the bargain, by straitening thee in thy business, may do thee more harm than good.

"If you would know the value of money, go and try to borrow some; for he that goes a borrowing goes a sorrowing," as poor Richard says; and indeed so does he that lends to such people, when he goes to get it again.

"Creditors have better memories than debtors—creditors are a superstitious sect, great observers of set days and times."

Remember that time is money. He that can earn ten shillings a day by his labor, and goes abroad or sets idle one half of that day, though he spends but sixpence during his diversion or idleness, ought not to reckon that the only expense—he has really spent, or thrown away five shillings besides.

Remember this saying, "The good paymaster is lord of another man's purse." He that is known to pay punctually and exactly at the time he promises, may at any time, and on any occasion, raise all the money his friends can spare.

The most trifling actions that affect a man's credit are to be regarded. The sound of your hammer at five in the morning, or at nine at night, heard by a creditor, makes him easy six months longer; but if he sees you at a billiard table, or hears your voice at a tavern, when you should be at work, he sends for his

money the next day—demands it before he can receive it in a lump.

Beware of thinking all your own that you possess, and of living accordingly. It is a mistake that many people who have credit fall into. To prevent this, keep an exact account, for some time, both of your expenses and your income. If you take the pains at first to mention particulars, it will have this good effect—you will discover how wonderfully small trifling expenses amount up to large sums, and will discern what might have been and may for the future be saved, without occasioning any great inconvenience.

In short the way to wealth, if you desire it, is as plain as the way to market. It depends chiefly on two words, *industry and frugality*.

LAW OF PATENTS.

CHARLES EWER, No. 51, Cornhill, has just published, price \$3.50, bound,

AN ESSAY ON THE LAW OF PATENTS FOR NEW INVENTIONS. BY THOMAS GREEN FESSENDEN, Counsellor at Law.

"As the West Indies had never been discovered, without the discovery of the Mariner's Needle; so it cannot seem strange, if Science be no farther developed, if the Art itself of Invention and Discovery be passed over."—BACON.

The second edition, with large additions, corrected and improved by the author.

RECOMMENDATIONS.

EXTRACTS FROM LETTERS TO THE AUTHOR.

Salem, Sept. 4, 1821.

Sir—I have examined your MS. on the Law of Patents with as much care as my engagements would permit, and I have no hesitation in expressing my opinion, that the work will be highly useful to all persons who are engaged in obtaining patents, or in vindicating them in Courts of Justice. The manuscript contains a collection of all the cases, on the subject of Patents, within my knowledge; and the principles contained in them are detailed with accuracy and fullness in the Summary, at the conclusion. I know of no work so comprehensive as yours on this subject; and it may be relied on as a safe guide. I hope you will receive encouragement sufficient to justify the publication, which I should think would be profitable as well as extensively useful.

JOSEPH STORY.

Thomas G. Fessenden, Esq.

Boston, September 25, 1821.

Sir—We have looked over the manuscript of the second edition of your publication on the Law of Patents. This edition is a great improvement on the first, and we think it will be a valuable and useful book to the profession, as it contains the statutes, and states we believe accurately, all, or nearly all the decisions, which have been made on a branch of the law, daily growing more interesting and important.

WM. PRESCOTT,

Thomas G. Fessenden, Esq. D. WEBSTER.

Boston, September 27, 1821.

Sir—The new edition of your Essay on Patent-Law, which I have taken some time to examine, is a very improved work. More ample materials, furnished to your hands, by decisions, subsequent to your former edition, have enabled you to present to the public, and the bar a more minute analysis, as well as a more comprehensive view of this branch of law than has yet appeared in England or in this country. Your method of arranging all the decisions, in the order of an analytical digest of the several requirements and provisions of our statutes for granting patents, puts the lawyer at once in possession of the judicial construction of the statutes; while your synthetic summary, far more extended and comprehensive than in the former edition, places within reach of the mechanic a sure means of judging whether his invention is a fit subject for a Patent; what is required of him by the statute in order to obtain his Patent; and what provisions are enacted for securing to himself and heirs his meritorious privilege. I cannot conclude without wishing you the success your labors surely deserve.

GEO. SULLIVAN.

Thomas G. Fessenden, Esq.

NEW ENGLAND FARMER.

Published every Saturday, by THOMAS W. SHEPARD, Rogers' Building, Congress Street, Boston; at \$2.50 per ann. in advance, or \$3.00 at the close of the year.

VOL. I.

BOSTON, SATURDAY, SEPTEMBER 21, 1822.

No. 3.

CONSIDERATIONS

ON THE NECESSITY OF ESTABLISHING AN

AGRICULTURAL COLLEGE,

and having more of the children of wealthy citizens educated for the

PROFESSION OF FARMING.

(Continued from p. 50.)

It is a mistaken idea that nothing can be made by farming. Universal fact proves the contrary. The chief part of our immense population lives by it, and lives too in a comfortable, and very many of it in a luxurious state. It is a fact, not now noticed for the information of our countrymen, who all know it, but as a contrast to what prevails on the other side of the Atlantic, where probably it will be considered incredible, that our farmers' tables are ordinarily furnished, three times a day throughout the year, with as much meat, besides a superabundance of vegetables, as their families and their laborers can use, and that two, out of the three meals a day have commonly coffee or tea, with sugar and cream or milk for their accompaniments. It is fervently to be wished, that a more economical mode of living were adopted—but so is the fact. Is this making nothing by farming? Which of the other pursuits of life furnish more of the means of comfortable living? Do we not often see it the source of riches and abundance, while many in other professions find it difficult to subsist? It is the only one that is independent. Indebted to his industry, and the ordinary goodness of providence alone, the farmer can live should all others be annihilated. His bosom is free from the anxieties which agitate others, who have not the same certainty of enjoying a competency, who know not whether there will be sufficient openings for their industry, whether their labors will be duly appreciated, or whether the chances on which success depends will eventuate for or against them.

Hope, which only can illumine the gloom that envelops humanity, and assuage its sufferings, holds her lamp, burning with a bright equitable flame, before the cultivator of the earth; while to others, it appears and disappears and appears again, like the wandering fire of an ignis fatuus, or flutters like the faint light of a glimmering taper, or like a meteor blazes intensely for a while, then vanishes forever.

Travel through our country, especially the western parts of this state; look at the groups of rosy, well clad children, that swarm from their dwelling, and cluster about the school houses; observe the neatness and elegance of the farm houses as you pass them; examine their appendages of out-houses, gardens, orchards and fields, stocked with cattle, or enriched with crops ripening for the harvest, and estimate their value; go into the churches, raised in all their magnificence, from the surplusages of farms, and behold the brilliance of appearances there, where not a single object, with the marks of poverty on it, is found to disfigure the scene; enter some of the stately abodes which will meet you with frequent occurrence; see the plenty, independence, comfort and happiness predominant in them, which

the lords of palaces might envy, but which they never can know; ask if these are the fruits of a fortunate or prosperous ancestry; you will be told, no! they have all been extracted from the soil by a judicious and industrious application of their present owners to the business of agriculture. After this say—is there nothing to be made by farming?

Little do many think what they make by it. Let them only calculate the amount of every article that enters into the consumption of their families, according to the prices which the inhabitants of cities pay, and they may obtain some idea of the produce of their farms. Some of them, and those not of the wealthiest, will no doubt, at the end of such a calculation, be astonished to find that, with all their economy and avoidance of extravagance, and notwithstanding their previous very different belief, they live at the rate of two or three thousand dollars a year: a fact easy to be ascertained by keeping regular accounts; and yet many such have accumulated no ordinary fortunes to bequeath to their families.

Englishmen, in their characteristic vain-glorious manner, exult in the happy condition of their farmers; and what is that condition? They cultivate a soil not superior, but perhaps on an average rather inferior to ours. The price of their land, compared to that of ours, is exorbitant, and rents of necessity are equally exorbitant. They possess no incommunicable *arcana* for managing their business; on the contrary, the American genius is well calculated to outstrip them, and will most undoubtedly do so, under the influence of that spirit which has become so active of late, in all the niceties of husbandry. One third, probably one half, if not more, of the fruits of their labor is taken from them, without remuneration—by tithes to support an ecclesiastical nobility with its numberless dependents,—by taxes to pay the interest of a national debt, of incomprehensible magnitude, incurred for carrying on a savage warfare against the human race, almost without intermission, for centuries past, and for the support of an aristocracy, of which the thousands that compose it, each must be supported in a style of magnificence which the first magistrate of this nation cannot afford—by the poor-rates exacted from them to keep a great portion of their immense population from actual starvation—and by what is drawn from them in private charities by that enormous mass of *pauperism*, utterly inconceivable to Americans, which overwhelms the nation, and not being adequately provided for by the public, continually assails their humanity with irresistible importunities. It is from this compulsive display of British humanity, that Britons, proud Britons, have obtained a character at home so perfectly the reverse of what their public acts have indelibly stamped on them abroad.

If then the English farmer, after having so much of the fruits of his labor taken from him, can, as represented by his own countrymen, live in an enviable style, what must we say of the American, whose contributions for the support of government, and all needful charitable pur-

poses, are comparatively but as a drop in the bucket, or the small dust in the balance!

O fortunatos, si sua norint bona, colonos!

But with all these superior advantages of the American farmer, it is nevertheless true, and it is no less true in regard to every other profession, that he who has not been in the way of becoming thoroughly acquainted with actual farming, will make nothing by it, or rather will sink his fortune in the attempt. A rich young man, sent into the country to prosecute farming, without an education for it, will, most assuredly, be cozened and swindled out of property, till all be lost; on the contrary, a competent knowledge of his business, to be acquired only by a regular education for it, would make it to him, if not a mine of wealth, at least the means of an affluent living.

The inference from all these facts and observations then is, that there is and must remain an insurmountable barrier to prevent the sons of men of other professions, and especially of the rich, from becoming farmers, unless there be some institution in which they can receive an education for that profession in a manner different from what is now possible:—That it would be incalculably for the benefit of our country if the surplus candidates for other professions, could be diverted to this, the most useful of all:—And therefore, that an institution specially intended for this purpose is of the greatest importance—that it is demanded by every consideration of the wisest policy, and that the resources of government cannot be better employed for any other object for which governments are formed.

It may be called an agricultural *school, academy or college*, no matter which; but if any importance is to be attached to names, I would give it the most respectable, and call it THE AGRICULTURAL COLLEGE OF THE STATE OF NEW-YORK.

Its primary object should be to teach *the theory and practice of agriculture*, with such branches of other sciences as may be serviceable to them: its secondary, *to make improvements*.

This state has been liberal, almost to excess, in the endowment of other colleges. For the purchase of but a little, almost useless, and now nearly neglected appendage to the college of physicians and surgeons—*Hosack's botanical garden*—a sum has been given which alone would place the all-important institution now advocated, on a respectable footing. After this, an endowment of such an institution as this cannot be consistently refused.

If then an agricultural college is of the importance thus clearly evinced—if the best interests of the community so eminently depend on it—if numbers of youth in the wealthiest families must without it, be abandoned to dissipation, and finally to ruin—if the perplexities, despair, and melancholy prospects of their parents, in regard to the destinies of their children, can be removed only by it, and if capital to an immense amount, otherwise devoted to annihilation in the sinks of prodigality and vice, can by it be drawn into the most productive employment, then surely must the agricultural college share the patronage of government, at

least equally with others; nay, it must become the DARLING FAVORITE.

There is another aspect of this institution not unworthy of serious meditation. Men filling the professions exclusively called the *literary*, have too great a preponderance in our political machinery. This necessarily results from their qualifications, derived from a superior education, giving them a superior power to accomplish their purposes, and which directed by an *esprit de corps*, as it unavoidably must be, cannot be expected always to harmonize with the general interests of the community. It has been observed, and not altogether without reason, that in some places, the clergy have had too much of a controlling influence over the politics of a state. Of such an aristocracy however, this state, we are proud to say, has had no reason to complain, and has nothing to fear. But the greatest evil of this kind, in our country in general, is most to be apprehended from the profession of law. Every one on reflection, must perceive the extent of the present existence of this evil, and may conjecture to what, without a remedy, it will ultimately grow.

The profession of law is considered, more than any other, as directly in the line of promotion to the highest offices, and therefore, like lottery gamblers, aiming at the highest prize, most ambitious families destine some of their branches for it; but the profession becoming thereby overstocked, numbers are necessitated to intrigue for measures specially favorable to their individual interests, and which may raise them to more fortunate stations. And thus are their superior acquirements, for want of a sufficient counterpoise, successfully employed with other views than the promotion of the public good. When markets are glutted with any commodities, the ingenuity of traders will be stretched to the utmost for discovering ways by which they may dispose of them, and necessity too often urges them to the adoption of unjustifiable means to effect their purpose. Not a few of the lawyers of the inferior grades, it is believed, are in similar circumstances, and obliged to resort to a similar sinister conduct.

These animadversions on the profession of law, as at present existing in our country, are by no means intended to disparage the profession; on the contrary, it must be confessed that to it we are indebted for the greatest blessings of government, the due investigation and correct discrimination of the rights of the people, and the execution of the laws for their security and protection. An honest, well qualified lawyer, with suitable dispositions, in any community, can be one of its most extensive public benefactors. To him the oppressed may flee, with a consoling confidence, as to a guardian angel, and be sure of relief. But the evil which has been noticed, and which in its progress is considered to have an aspect sufficiently malign to justify apprehensions of its dangerous growth, arises from the superabundance of the numbers annually added to the profession, and the want of talents, elsewhere, to form a counterpoise to its preponderating weight. But we cannot pull up the tares, lest thereby we destroy the wheat also.

The most effectual, if not the only remedy for this evil then is, to introduce more men of accomplished education into the agricultural department, men who shall have discernment suf-

ficient to detect the tendency of sinister measures that may be artfully projected, and the masked batteries that may be raised in hostility to the public good, and be able to meet the champions of them with their own weapons, and with equal dexterity in the use of them. It is believed that nothing better can be devised, for bringing about this most desirable reformation, than the proposed agricultural college, and the dissemination of similar institutions throughout the nation: and if so, this view of it urges, with additional force, the necessity of its adoption, for giving a still higher finish to our already most wonderfully improved political fabric; the most perfect existing model of government; the wonder and the envy of the world.

In our ordinary institutions we have been the mere copyists of foreign establishments. The happy peculiarities of our country require something different; and it would be an eternal blot on the American character if we had not the genius and the boldness to tread out of the paths traced in barbarous times, and pursue a course suited to this new world, so very different from the old; especially in regard to the matter now contemplated, which so eminently involves the highest interests of our country. Let it then belong to the state of New-York, to give birth to an institution, which, if the view now taken of the subject be correct, will exceed all others in immediate and most lasting substantial utility. She will then have the praise of being the mother of *agricultural schools*, by which the cultivation of the earth, in the best possible *known* manner, will be taught, and ultimately improved to the highest possible state of perfection.

One other very important effect will be produced by such an institution. Comparisons will be made between the practice of those who are educated in it, and those who are brought up to farming in the ordinary way; and thereby an emulation will be excited that will cause exertions, which would not otherwise be made, for making continual further approximations to the maximum of improvement.

(TO BE CONTINUED.)

MASSACHUSETTS AGRICULTURAL REPOSITORY AND JOURNAL, FOR JUNE.

(Continued from p. 43.)

By a long article on the subject of cutting rings in the bark of fruit trees and other trees and plants, extracted from a foreign publication, among other facts we learn that,

"All apple trees form an abundance of additional flower buds, in consequence of ringing; but if the ring be wide, the ringed branches, especially young ones, speedily become sickly; it is therefore advisable, with them not to cut rings of greater width, than what will be closed up, at the end of the same season, or early in the following year; besides, it seems that the improvement in size and beauty, is obtained chiefly in the first year of the ringing, therefore the rings of apple trees certainly should not exceed a quarter of an inch in width, on strong branches, and they should be narrower on small and weak shoots. Fresh branches on the same tree, ought to be annually ringed, and thus a succession of produce be uninterruptedly kept up."

A Mr. Twamley found by experiment that

"the rings made in horizontally trained branches do not so readily close up as those on upright growing ones; and he found an advantage in protecting the exposed part of the wood at the ring with grafting clay." Another gentleman "made his rings a quarter of an inch wide, at the end of April and beginning of May, and in the winter covered the open rings with clay and cow dung. The fruits of all, in comparison with the produce of the unringed branches, were, exclusive of the additional quantity, either altered in size or in color, but did not keep so well, and were thought inferior in flavor, which is the natural consequence of the increase in size."

It appears that pear trees suffer less from ringing than apple trees. "In healthy and clear shoots, the bark of pear trees soon restores itself over the ring, unless it is cut very wide. The effect of ringing them is a certain production of blossom buds, so much so that even young trees may be brought into bearing by this means."

"The branches of plum and cherry trees sustain injury and become cankered by ringing; but as they are always free blowers, an increase of blossom by artificial means is not wanted to make them produce fruit." "Vines are much benefited by ringing; their blossom is produced on the shoots of the same year, in sufficient plenty; for additional blossoms, the use, therefore, of ringing, is not required, but increase of size, early ripening, and improvement of flavor in the grapes, all result from ringing." "The practice may be extensively and usefully applied to ornamental shrubs and plants, which do not readily blossom."

It is observed by Sir John Sinclair that, "In many cases, particularly in pear trees, cutting out a narrow ring of bark, from one third to one half of an inch, quite round the stem, has rendered the crop abundant, which otherwise would have failed. If the incision be covered with a rag, the hollow is filled up with new bark, in the space of a few weeks." Probably a small wire twisted round a branch, so as to form a ligature, might answer every purpose of cutting away the bark, without any danger of injuring the tree.

A writer in the *American Farmer*, vol. iii, p. 342, says that he has tried the experiment of ringing or girdling fruit trees, and is satisfied that fruit may be thereby produced, although the operation injures the trees. He therefore disapproves of it, and prefers *scoring*, that is making incisions into the bark lengthwise up the trunk, continuing, if necessary, along the principal branches. Indeed the only important use which, as we conceive, can arise from ringing fruit trees is found in its forcing young fruit trees to shew what sort of fruit they will produce, which will enable the owner to determine whether it would be advisable to graft them.

We have next an article on the Dwarf Indian Corn, taken from the Transactions of the London Horticultural Society. Some heads of this kind of corn were exhibited, which were produced from seed sent to the Society from Paris by M. Vilmorin, under the name of *Mais à Poulet*—"Chicken Corn." The plants do not exceed eighteen inches in height, are very hardy, not being injured by the spring frosts. The grains are of a bright yellow color, round and small, and the flour they contain appears to be peculiarly white and fine.

Some Notices of the Larch Tree (*Pinus Larix*) known by the several names of Juniper, Hackmatack and Larch—by John Lowell. Mr. Lowell says that the

"Hackmatack grows more rapidly, than the *real* Juniper, commonly called the red Cedar, and is more durable for posts, than that plant. It will grow on any soil, and rapidly in soils entirely different from those, in which it is usually found. I have them growing, in pure sand, without the smallest apparent admixture of loam, and on a barren gravel—a gravel, which will scarcely support grass. I have large trees in such soils 18 to 24 inches in circumference and thirty feet high, of thirteen years growth."

There are a number of varieties, which are described in the London Horticultural Transactions, and extracted into the article now under consideration. Among others are

"The Common Larch (i. e. the Larch of Great Britain) with red or pink flowers. In the duke of Athol's plantations on mountainous tracts at an elevation above the sea of 1500 to 1600 feet, this tree has, at eighty years of age arrived at a size to produce six loads of timber, appearing in durability and every other good quality, to be likely to answer every purpose, both by sea and land."

"*Pinus Microcarpa*, (a small fruited or coned Larch) the red Larch of North America. There are some trees of this kind fifty years old on the Athol estates, but they do not contain one third as many cubic feet of timber as *Pinus Larix* at a similar age. (That is, the *English Larch* furnishes three times the quantity of timber in fifty years which our own common Larch does.) The wood is so ponderous that it will not swim in water. Its cones are much shorter than those of the *Pinus Larix*, its branches weaker, and its leaves narrower."

Mr. Lowell thinks it would be well to import the cones of the English Larch and some other varieties from Scotland.

Mr. Lowell next gives an account of the success, which has attended his planting small patches of forest trees. In 1807, 1808, and 1809, he planted with forest trees from two to three acres of land, which was barren and unproductive, its whole value per annum not ten dollars. The trees were White Pine, Larch, Fir Balsam, and in the better parts, Oak of various sorts, Maple, Beech, Ash, Elm, Locust, Spruce, Spanish Chesnut, &c.

"The land was about half of it ploughed and kept open with potatoes for 2 years and then abandoned to the course of nature. The pines

were taken up out of the forest with great care, not more than 5 feet high. Wherever I had the cupidity and impatience to introduce a larger tree I either lost it or it became sickly. In some places I planted acorns, and as to my hard wood forest trees, transplanted from the woods, finding they looked feeble and sickly when they shot out, I instantly sawed them off at the ground or near it. This required some resolution, but I have been abundantly paid for it.

"The result of this experiment is this, that in a period from 13 to 15 years I have raised a young, beautiful and thrifty plantation comprising almost every variety of tree which we have in Massachusetts, which are now from 25 to 35 feet high, and some of which, the thickest white pines actually measure from 9 to 12 inches diameter. The loppings, and thinning out of these trees now furnish abundant supply of light fuel for summer use, and upon as accurate a calculation as I am able to make, I am convinced, that the present growth, cut down at the end of fourteen years from the planting would amply pay for the land at the price it would have brought. I do not mean to say, that this would be the case in the interior, but in the vicinity of Boston and of Salem, I am sure this experiment may be tried with perfect success. In Chelsea, Lynn, Cambridge, West Cambridge, some parts of Brooklyn, Wenham, Danvers, and many other old towns, I see tracts of land which can produce but little, of any value, and which would in fifteen years, at the expense of ten days labour for the first four years on each acre, produce trees that would be worth the present price of the land. I am persuaded, that this is no loose calculation."

"I owe it to the cause of truth, to state, that I committed a very grave and important mistake in planting. From the desire to cover my land more rapidly, and to thicken my plantations for ornament, I planted my trees too near each other. I now suffer from this very natural cupidity. I cannot thin them out without hurting the beauty of the landscape, and the trees show how much they suffer by the yearly loss of their lower branches, which will always die if they have not air and moisture, and like other misers, I find myself unwilling to part with the treasure I have possessed.

"This however will not apply to the farmer who raises from a desire of profit. His trees should be placed at least twenty-five feet asunder in every direction; he will not fear, as I have done, the use of the axe to thin out his trees. I could now cut out light fuel for the supply of my family for two years, without injuring my plantation, but I have not courage to do it."

"I am aware that two objections will be made to this statement—First, that the scale of experiment was a small one, not exceeding two acres and an half. It is true; but the experiment was sufficiently large to test the utility of the measure. Secondly, that I disregarded expense, and put down the cost to the score of luxury. This is not true; I am sure that the whole labor did not exceed twenty days work of one man on an acre, and with respect to one acre of it not five days labor (in the whole) of one man, has ever been expended upon it.

"I planted the trees in two or three days, and left them to their fate; but I consider two conditions, indispensable to success. First, that

as to pines of all sorts, and other evergreen trees, they should be put out not more than four years old; not pruned, for they will not bear the knife well. Secondly, that as to hard wood forest trees transplanted from the woods, they should be instantly cut down to the ground or near it.

"It is only because we have no nurseries of forest trees in New England, that I speak of the barbarous practice of transplanting and instantly heading down. Young trees from a nursery would in all respects be preferable."

(TO BE CONTINUED.)

The Agricultural Society of Buck's County, Penna. have recommended to the citizens of that county, "to strictly prohibit the practice of gunning on their lands, inasmuch as it is believed that the present alarming increase of insect is principally owing to the destruction of birds." A writer likewise in the Farmer's Journal, of Windsor, Vt. remonstrates against the wanton destruction of the robin, whose young are fed on the insects which infest our cornfields.

In an article in the American Watchman, recommending the growth of *millet*, the following is given as the product of one acre sowed with half a bushel of that seed. Three tons of hay and 30 1-2 bushels of clean seed. The hay was consumed by horses who seemed to relish it as they would the best upland. The seed when manufactured into flour makes a cake more wholesome and equally palatable with that of buck wheat. The writer says if one bushel were sowed to the acre the crops would in all probability be proportionably better.

An experiment has been made in England to ascertain whether the manufacture of *spider webs* should be encouraged. It would require five thousand insects to make spider silk sufficient to form a single pair of stockings. It has been proved, by experiment, that the spider silk is so exceedingly fine that five threads are required to form one of the strength of the silk worms. A gentleman in England presented to a society, a pair of gloves and stockings, both from the spider web, possessing all the gloss and beauty of real silk.

Baltimore Morning Chronicle.

The influence of the *black* color upon heat was lately explained to the anatomical class of *Allahabad* in the following manner:—

Two tea pots, one *black* and the other *white*, were placed on a table, and filled, each with boiling water, from the same kettle, which had been placed on the fire in the presence of the students. At the termination of the lecture, in the course of an hour, the water in the *black* tea pot had very considerably cooled, as was perceptible both to the finger, and by the thermometer, while the temperature in the *white* tea pot continued nearly at its original standard.

Calcutta paper.

The manufacture of woollen cloth, at Steubenville, Ohio, has been brought to such perfection, that an English gentleman lately examining some of the cloths at the factory storehouse, could not be persuaded but that the proprietors kept on hand an assortment of fine British cloths, and sold them for American.

FACTS AND OBSERVATIONS RELATING TO
AGRICULTURE & DOMESTIC ECONOMY.

ON DEEP AND FREQUENT PLOUGHING.

"I entertain no doubt of the utility of deep ploughing; not at once, in our lands in general, but by an increase of two or three inches at every annual ploughing, until the earth be stirred and pulverised to the depth of ten or twelve inches. Indian corn planted in such a mass of loosened earth, would not, I am persuaded, ever suffer by ordinary droughts. Like a sponge, it would absorb a vast quantity of rain water, and become a reservoir to supply the want of that and all other plants. Nothing is more common in a dry summer, than the rolling of the leaves of corn; and that circumstance is often mentioned as an evidence of the severity of the drought. This rolling of the leaves of Indian corn, is the consequence in part, of scant manuring, but still more of shallow ploughing. Few, perhaps, are aware of the depths to which the roots of plants will penetrate in a deeply loosened earth. A gentleman much inclined to agricultural inquiries and observations, informed me, near fifty years ago, that seeing some men digging a well, in a hollow place, planted with Indian corn, then at its full growth, he stopped to examine how far its roots had descended, and he traced them to the depth of nine feet. The soil was an accumulation of earth, which had run or been thrown into the hollow.

"The seeds of the common turnip, sown in warm weather, and on a soil sufficiently moist, I have known to vegetate in about eight and forty hours; and in only four or five days afterwards, I found the plants had sent down roots to the depth of four or five inches."

Mr. Pickering's Address to the Essex Ag. Soc.

Sir John Sinclair gives the following MAXIMS RESPECTING THE PROPER DEPTH OF PLOUGHING.

1. The depth to which land ought to be ploughed, must first be regulated by the depth of the soil. On thin soils, more especially on a rocky substratum, the ploughing must necessarily be shallow; but when the soil, whether light or strong will admit of it, the ploughing ought to be as deep as a pair of horses can accomplish; and at some seasons, it is advantageous to plough it even with four, particularly at the commencement of every fresh rotation.

2. The depth ought likewise to depend on the means of improving the soil; for when the land is poor, and the means of enriching it are scanty, the depth of ploughing ought to be in proportion to the quantity of manure which can be obtained.

3. Deep ploughing is highly advantageous upon every soil, excepting those where the substratum is an ochry sand. In fact, such sands are scarcely worthy of being cultivated, unless in situations where much alluvial compost, [marsh mud, &c.] or short town manure, can be procured.

4. It is a general rule never to plough so deep as to penetrate below the soil that was formerly manured and cultivated, excepting upon fallow, and then only, when you have plenty of lime or dung to add to, and improve the new soil.

5. Many farmers recommend, when fallowing land, to go as deep as possible with the first furrow; by which the subsequent furrows will

be more easily done, and to expose the soil to the winter's frost, and to the summer's heat; but when the land is ploughed in spring for a crop of oats, a strong soil cannot be ploughed in safety, above five or six inches.

6. Deep ploughing is advisable on moorish cold soils, as it affords a greater scope for the roots of plants to procure nourishment, admits the superabundant moisture to subside from them, and prevents the summer drought from making an injurious impression on the growing crops; for, on such land, shallow ploughing exposes vegetation to be starved or drowned in wet weather, and to be scorched or withered in dry.

7. It is unnecessary to plough deeper, when the seed is sown, than where there is a fair probability of the different kinds of plants sending their roots; and as beans, clover, and turnips, the only tap-rooted kinds usually cultivated in this country, seldom send their shoots above seven or eight inches down into the soil, and the culmiferous species not so far, it is probable, from these circumstances, that from seven to eight inches may be deep enough for all the purposes of ordinary culture. Occasionally, however, ploughing even ten inches, in the course of a rotation, during the fallow process, is advisable.

Deep ploughing is not to be recommended, 1. When lime or marl has been recently applied, as they have such a tendency to sink, from their weight, and the moisture they imbibe. 2. Where turnips have been eaten off by sheep on the land where they were grown. 3. When grass only two or three years old, more especially where it has been pastured by sheep, is broken up; because, owing to the extreme condensation of the soil, by the trampling of the sheep, a furrow, even of a moderate depth to appearance, will make the plough penetrate below the staple that had been cleared, by the culture given during the previous fallow. By this means myriads of the seeds of annual weeds are raised to the surface, where they vegetate, and materially injure the crop cultivated, besides replenishing the soil with a fresh supply of their own seeds. In all these cases from four to five inches will be found sufficient. And, 4. If land is infested with natural grasses, which generally run much on the surface, the first ploughing should not be deeper than is necessary to turn up the roots of the grasses that they may be destroyed.

ADVANTAGES OF DEEP PLOUGHING.

1. Bringing up new mould, is peculiarly favorable to clover, beans and potatoes; and, indeed, without that advantage, these crops usually diminish in quantity, quality and value.

2. Deep ploughing is likewise of great consequence to every species of plant, furnishing not only more means of nourishment to their roots, but above all, by counteracting the injurious consequences of either too wet or too dry a season. This is a most important consideration, for, if the season be wet, there is a greater depth of soil to absorb the moisture, so that the plants are not likely to have their roots immersed in water; and in a dry season it is still more useful, for in the lower parts of the cultivated soil, there is a reservoir of moisture, which is brought up to the roots of the plants, by the evaporation which the heat of the sun occasions.

3. By deep ploughing also, the ground may be more effectually cleared of root weeds of every description; in particular, it is the best mode of eradicating thistles.

4. By deep ploughing, animal and vegetable manures, which have such a tendency to rise to the surface, are properly covered. This cannot be done by shallow ploughing, in consequence of which much of the value of such manures is lost.

5. By deep ploughing a heavier crop is raised than can be got from a shallow furrow. An intelligent farmer, indeed, after pointing out that deep ploughing increases the staple of the soil, keeps the roots of the corn from being injured by wetness, and also enables the crop longer to resist drought, adds, "*I have ever found deep ploughing attended with good crops, when ridges, shallows ploughed, in the same field, were but indifferent;*" which seems a decisive proof in favor of deep ploughing.

The celebrated Arthur Young gives the following rules relative to Ploughing.

1. An additional depth should first be gained in autumn, that successive change of seasons may take effect in atmospheric influences, before any seed is ventured in the raw stratum first brought up.

2. The quality of that stratum should be examined; it is sometimes sterile by reason of an acid discoverable by boiling in water, and putting that water to the test of blue infusions.

3. Animal and vegetable manures cannot be buried; at whatever depth they are deposited, their constant tendency is to rise to the atmosphere.

4. Fossil manures are extremely liable to be buried, having a constant tendency downwards. Chalk, marl, and clay, are sufficiently soluble, or so miscible with water as to sink in a regular mass, and are sometimes found much below the depth of the plough.

5. In soils of a poor hungry quality, there should be some proportion observed between the depth of ploughing and the quantity of manure usually spread; but this does not hold good on better soils.

6. Soils are rarely found that ought not to be ploughed, in common, six inches deep; many ought to be stirred eight inches, and some ten.

7. One deep ploughing (to the full depth) should be given once in twelve, eighteen, or twenty-four months: if this be secured, shallow tillage is in many cases preferable to deep working oftener, especially for wheat, which loves a firm bottom.

EASY METHOD OF DISCOVERING WHETHER OR NOT
SEEDS ARE SUFFICIENTLY RIPE.

An English publication assures us, that, "Seeds, when not sufficiently ripe, will swim, but when arrived at full maturity, they will be found uniformly to fall to the bottom; a fact that is said to hold equally true of all seeds."

SOAKING OF SEEDS.

"In dry seasons the soaking of seeds in water, a day or two before committing them to the ground will forward their growth, as well as by artificially watering the ground before or after sowing them; and the soaking of them in a solution of salt and water may have another advantage of giving an opportunity of rejecting

the light seeds, which float, and perhaps of destroying some insects which may adhere to them; the sprinkling some kinds of seeds with lime may also be of advantage for the purpose of destroying insects, if such adhere to them, and of attracting moisture from the air, or lower parts of the earth, or for its other useful properties; but where the seed, soil and season, are adapted to each other, none of these condiments are required.

It may nevertheless, on other accounts, be very advantageous to steep many kinds of grain in the black liquor, which oozes from manure heaps. Mr. Chappel, in the papers of the Bath Society, found great benefit by steeping barley in the fluid above mentioned, for twenty-four hours, and skimming off the light grains. On taking it out of the water, he mixed wood ashes sifted with the grain to make it spread regularly, and obtained a much finer crop, than from the same corn, sown without preparation. To this we may add, that to steep the seed in a solution of dung in water, as in the draining from a dung-hill, is believed in China both to forward the growth of the plant, and to defend it from a variety of insects, according to the information given by Sir G. Staunton.*

PRESERVING SEEDS.

Seeds of plants may be preserved, for many months at least, by causing them to be packed, either in husks, pods, &c. in absorbent paper with raisins, or brown moist sugar; or a good way, practised by gardeners is to wrap the seed in brown paper or cartridge paper pasted down, and then varnished over.†

SOWING FRUIT WITH SEEDS.

When the fruit, which surrounds any kind of seeds, can be sowed along with them, it may answer some useful purpose. Thus the fruits of crabs, quinces, and some hard pears, will be all the winter uninjured covered only with their autumnal leaves, and will contribute much to nourish their germinating seeds in the spring.

Phytologia.

TO GENERATE THE BEST KINDS OF SEEDS

The most healthy plants must be chosen, and those which are most early in respect to the season; these should be so placed, as to have no weak plants of the same species, or even genus, in their vicinity, lest the fecundating dust of weaker plants should be blown by the winds upon the stigmata of the stronger, and thus produce a less vigorous progeny.—*ibid.*

A SUBSTITUTE FOR RINGING SWINE.

Mr. Tubbs, an English breeder of stock, has recommended a mode of dealing with these mischievous animals, which it is said may supercede the necessity of putting rings into their noses. It consists simply in shaving off, with a razor or sharp knife, the gristle on the top of the noses of young pigs. The place soon heals over, and the pigs are thus rendered incapable of rooting.

BREEDING SWINE FOR SALE ON THE FOOT, FOR STORE FIGS, ROASTING FIGS, &c.

A breeding stock of Swine is said, by some writers on husbandry, to be more profitable to the farmer than keeping *fattening* stocks of the same animal. This will no doubt be the case on a dairy farm, as whey and skimmed milk

can, perhaps, be applied to no other purpose so profitably; and those substances are not sufficient to fat grown hogs for the market. The pigs may be sold at any time from three weeks to six months old, and their places supplied by fresh litters. A practice of this sort is recommended in Hunter's Geographical Essays, vol. vi, p. 183.

From the Old Colony Memorial.

In answer to the inquiry of Agricola, "Whether young apple trees are not sometimes destroyed by taking all their top branches off in the operation of grafting?" By nursery men, the operation of grafting is generally performed upon seedlings in the nursery while very small, and then the whole top is taken off without any injury or danger;* but when it is desired to change the fruit of a standard tree, or one that has attained nearly the size of bearing, the knife ought to be applied with caution—the head of the tree ought to be opened, by pruning the lateral branches of their upright limbs, so as to let in the light and air freely, and then cut off the leading branch, or the two leading branches, as there frequently are two, and sometimes three, and graft the desired fruit, leaving the lateral branches, at least one year, when you may graft one or more of the lateral branches as you may wish to form the head; and the second year you may with safety cut off the remaining superfluous branches—the necessity or utility of leaving on the lateral branches I conceive to be, the preservation of the circulation of the sap—in my own experience I have lost several trees by cutting off the whole head, and inserting several grafts at a time; I found they failed the second year by a sort of *canker*, beginning where the amputation was made, and descending so as to cut off all nutrition from the scion, while suckers would shoot up from the stump. I will not say that failure *universally* follows the cutting off the whole head at once, for I have seen it succeed in some instances, as I have travelled the road, but I have also seen many others that have failed. These facts are the result of many years experience and observation.

Yours,

P.

* There is a beautiful young orchard of about 250 apple trees in the town of Hanson, set out a few years since by its present owner, Charles Cushing, Esq. All the trees were grafted the two first years. The tops were wholly cut away; not a limb or sucker was spared. All the scions were set in the trunks of the trees. Not one of the number died, and the orchard is now remarkably thrifty, and no doubt fixes the eyes of travellers in that part of our country.

From the same Paper.

To the Editor—

SIR—In the New England Farmer, Sept. 7th, a writer over the signature of "A Farmer," refers to a publication in the O. C. Memorial, signed "Monumet;" adverting to the destructive ravages of the worm upon the grass and corn in this vicinity. The Farmer regrets that Monumet, while announcing the enemy, did not attempt a description of him, and he observes, "If he has ascertained, that it was a worm, which produced this devastation, he might have described its length, its color, its first appearance, and duration. Is it the same worm which attacks the grass and the corn? A worm that

should destroy, or injure Indian corn in August, must be an important enemy, and should be described."

To supply the deficiency of Monumet, and in some imperfect manner to meet the desire of the Farmer, I will attempt a description of the worm, and as far as facts will enable me, its first appearance; its duration cannot be ascertained, (for it continues in full activity at the present time,) nor as yet, its generation, or its habitudes.

The worm was first discovered about the middle of June, its presence was suspected from the sickly appearance of the corn, about the time of *half killing*, the leaves turned red and wilting. On examination the worm was found depredating on the fibrous roots. It was then about three quarters of an inch in length, it has continued increasing in size until it has attained the length of one inch and a quarter or half. I shall not attempt a scientific description, but perhaps I may be able to make myself understood by those who have made natural history their study—its colour is white or a yellowish white, except the exterior part about one third its length appears bluish, from the contents of the abdomen, which, when emptied, is wholly whitish. Its head is large and beetle-shaped, copperas-yellow, near its mouth are two horns, similar to those of the beetle, but not so large in proportion to its size, immediately over these were a pair of *antennae*. I could discover no eyes on each side—on the anterior part, are three principal legs, resembling (when viewed through a microscope) those of a crab or lobster and are placed within an eighth of an inch of the head—forward of these, and near its mouth, are two smaller legs, similar in appearance to the other, but of which he makes no use in moving, but appear to be placed so as to assist him in conveying food to his mouth; the rest of his body is without legs, and in moving is dragged along—the whole body consists of distinct folds, I did not count them, but I think there may be 10 or 12—the size is that of the largest goose-quill, or rather larger.

That it is "the same worm which feeds on grass and on the corn" is demonstrable, and on the *potatoes* also, which in some fields are more than half devoured.

With respect to its generation or its habits we have not had experience, or an opportunity to observe them, so as to form even a conjecture. In digging the earth last March, they were dug up three feet below the surface, and in digging a post-hole in June they were found two feet down. Their lodgment now, is about two inches below the sward, which may be separated from the earth and turned over like a carpet, and so numerous that in one instance 128 were counted on the area of one yard, in another 12 on a square foot.

They first made their appearance here in 1819, they did much damage then to the grass, especially pastures, but not to be compared to that of the present season;—and those fields that were devoured then, have nearly escaped now. In the spring of 1820, there was an unusual appearance of what are called the *May Bee*; the conclusion then was, that they were connected with these worms, but this theory wants confirmation.

Yours,

PLYMOTHEUS.

FOR THE NEW ENGLAND FARMER.

Extract of a letter from J. F. Dana, Professor of Chemistry in Dartmouth College, to the Editor, dated Sept. 17, 1822.

DEAR SIR,

I was pleased with the correspondence between Gov. Wolcott and Mr. Pomeroy, contained in your paper, which I received yesterday. The subject is one of great importance to the country.

The application of steam as a means of separating the glutinous matter from flax is suggested by Gov. Wolcott, and probably might be employed with the most decided advantage; but will it destroy the coloring matter? probably not; and the use of steam generated from alkaline solutions seems to be forbidden by the suggestion of Mr. Pomeroy, that alkaline leys destroy a cellular oil on which the delicate softness of the flax depends. I wish to inquire, why chlorine or oxymuriatic acid gas may not be employed? The objections to its use in common bleaching will not apply to its use in bleaching flax. Permit me to suggest its application in the following way. Let a convenient apparatus for *steaming* the flax be prepared; into the boiler from which the steam is generated, introduce a convenient vessel of sheet lead which shall contain the materials from which *chlorine gas* is produced, viz. sulphuric acid, manganese and common salt. Now when heat is applied to the boiler to produce steam, the leaden vessel which it contains and which is surrounded by water, will be also heated; steam, and chlorine gas will be formed at the same time; the former will dissolve the glutinous matter, and the latter will destroy the color, and both will pervade every part of the apparatus. Experiment alone must decide whether this suggestion is practically useful; nor do I know that it has not been tried, and found useless.

The *muriate of lime*, suggested by Mr. P. has no powers in bleaching, and it is stated by some writers, that it very much weakens the texture of *linen*.

J. F. DANA.

Agricultural Exhibition for the County of Essex, at Topsfield, on Wednesday, Oct. 2, 1822.

The Trustees of the Essex Agricultural Society, to encourage improvements in the Agriculture and Manufactures of the County, offer in premiums for the present year, more than *Six Hundred Dollars*. They have taken care to provide convenient accommodations, and from the increasing interest manifested in the subject, they anticipate a more interesting exhibition than in any preceding year.

All claims for premiums for Stock, must be entered with the Secretary, or Col. E. Wildes, of Topsfield, on the day previous to the exhibition.

All Animals and articles intended for exhibition or premium, must be presented to the officers of the Society, who will be in attendance to receive them, by eight o'clock, A. M.

The Ploughing Match will take place precisely at eleven o'clock. The trial of Working Oxen will follow immediately after.

At one o'clock, the members of the Society will dine together at the Topsfield Hotel. At two o'clock, the Reports of the Committees will be received and examined by the Trustees.

At half past two o'clock, the members of the Society will go in procession from the Hotel to the Meeting House, where an Address will be delivered by the Rev. Dr. Eaton, of Boxford. After this, the Reports of the Committees will be publicly communicated, and such other business transacted as the interests of the Society may require.

From the Columbian Centinel.

MR. RUSSELL—As the farmers are blessed with an abundant crop, it is of the first importance to have it well harvested.

The present month has been uncommonly favorable to the harvesting of beans, onions, and potatoes.

I would recommend to those who have *beans* not yet harvested, to have them pulled and housed before all the vines are dead, and before there comes rain. For one bushel gathered in this way is worth two bushels which are left in the field till the rain swells them. It is a lamentable fact, that nearly one half of all the white beans, which come to market, have a shrivelled appearance, which indicates neglect in the harvesting. For if the rain does not swell the bean, after it becomes dry its surface will be fair and smooth, and the bean, when dried, will be soft and tender. They are then much more wholesome than if they had been exposed to rains.

Onions.—As soon as onions come to their growth, the tops and roots begin to dry, and they should be harvested. They should be pulled, dried a day or two in the field, and then housed, before the sun turns them green and makes them tough. For they will taste and keep much better than those which lie out till they take the second root and become weather-beaten.

Potatoes.—I presume every man has observed how much better flavored potatoes are in the month of August, and even to the middle of September, than at any other time of the year. The reason is obviously, because they are gathered before they have attained their full growth and before the vines are dead. Potatoes, therefore, should be harvested as soon as the vines begin to die, and then they will not have any disagreeable earthy and watery flavor. They may be placed immediately in the cellar and will not sustain any injury from their dampness, if the cellar doors and windows are left open in fair weather.

THE FARMER'S FRIEND.

From the New York Statesman.

Cotton.—Our readers will recollect that in the early part of the year several essays were published in the Statesman, under the signature of "Agricola," on the subject of cultivating cotton in this and the adjoining states. Our correspondent being desirous that a fair trial should be made, procured, at his own expense, from South Carolina and Virginia, several barrels of seed, which were deposited with the editors of this paper, and by his direction, gratuitously distributed to all who were disposed to try the experiment. We shall be glad to learn from those who have attempted the cultivation of cotton from seed received at this office, what success they have met with. We have seen some bolls taken from the garden of Mr. O. Parker, of Greenwich, on the 10th inst.

which had then opened, and which present fine specimens of cotton. The seed was planted about the 23d of April, and we have no doubt that the cotton in the garden from which these bolls were taken, will come to maturity before the warm season is over.

Poulson's Philadelphia paper of Saturday says—"Some cotton seeds were put in the ground at Camden, N. J. in May last, and on the first day of September, inst. a part of it was maturely ripened and fit to gather. As it was late in the spring when these seeds were planted, there cannot be a doubt but that this valuable plant may be successfully cultivated in the sandy soil of New Jersey."

From the Western Reserve Chronicle.

Quick Work.—The barn of Mr. S. Hutchins, a respectable farmer in Vienna, (Ohio,) was struck with lightning on the 23th July, and most of the hay and all the grain raised on his farm the present season were consumed. On the 7th of August, his neighbors assembled and erected a barn for him 36 feet by 26. They cut the timber, hewed, framed, raised, boarded, shingled, made and hung the doors, and a large load of hay presented to him, was unloaded in it before sunset of the same day.

Something Marvellous.—On draining off the water in the summit level of the canal this week for the purpose of removing the earth which had been deposited in it by the late freshet, large quantities of live *clams* were discovered in the bottom of it, the shells of some of which measured 7 inches in length, and were well proportioned. Persons who have partook of these aquatic sojourners of our place, represent them to be of "*most delicious flavor*."—The shells are of a greenish cast, and almost as transparent as glass.—*Sandy Hill Times*.

NEW ENGLAND FARMER.

BOSTON:—SATURDAY, SEPT. 21, 1822.

ON SAVING AND MAKING THE MOST OF MANURE.

(Continued from p. 55.)

The advocates for long manure, and the sticklers for short manure, in our opinion, are both right with regard to some of the points in controversy. As regards other matters in dispute, we believe the truth lies between them, and of course both parties are a little on one or the other side of it.

The better to comprehend the subject, and make those practical deductions, which may render its discussion useful, it may be well to take into view,

- I. The nature of the soil to which manure is to be applied.
- II. The crop which is immediately to succeed the application of the manure, and which it is principally intended to benefit.

I.—THE NATURE OF THE SOIL.

Manure must not only ferment, but be completely decomposed, before it can produce its *full* effects in the nourishment of plants, or in enriching the soil. The products of its fermentation are certain matters called gasses, factitious airs or elastic fluids. They are, principally, carbonic acid gas, hydrogen gas, and azote, or nitrogen gas. A dark colored liquid, of a slightly sour or bitter taste will likewise be formed; and if the process be suffered to continue for a sufficient length of time nothing solid will remain except earthy and saline

natter colored with charcoal.* "If a quantity of stable dung be piled in a heap, and freely exposed to all the varieties of weather, it soon heats and emits a constant stream of vapor. As the gasses are escaping it is constantly diminishing in weight and volume; and by the end of six months, if there has been alternate moisture and warmth, not above a fourth part of the original bulk remains to be spread on the field; and this is always a blackish earth, mostly of carbonaceous matter. All the other ingredients consisting of the hydrogen, and azote, with part of the carbon in the form of carbonic acid, are partly sunk in the soil, and partly blended with the atmosphere. I admit the latter are not lost in the general system of the universe: but carried with the winds, they combine anew with some living vegetable, or enter into some equally useful compound; but lost they are to the farmer beyond all calculation. They may enrich his neighbor's crop, or be mixed and entangled in the luxuriance of the forest, but they can never reward his labor, nor impart plenty to his harvests. The nutritive juices may have passed downward, and fertilized the spot which it covered, but the substance is evaporated, and as completely one, as if it had been consumed by fire."†

There can be no doubt but vegetable manure, as long as it remains unaltered in its texture, and without involving any of the products of putrefaction can have no other than a mere mechanical effect in making the soil lie loose, which, in dry weather, will prove rather injurious than otherwise. But if the putrefactive process is carried on, after the manure is spread, and covered in the field, its volatile products, before mentioned, will be imbibed by the soil, and yielded as they may be wanted by growing vegetables.

We know however, that some kinds of earth retard, and others put an entire stop to putrefaction. A very dry, or a very dry soil will prevent wood, straw, &c. from rotting. Some sorts of earth will turn vegetables to peat; and some will preserve even animal remains for centuries, as entire as Egyptian mummies. That wood will rot much quicker in some than in other grounds, on the same farm, is a fact known to every serving husbandman, who has ever made much use of what is called post-and-rail-fence. Is it not then very possible that the difference among agriculturists relative to long and short manure may have been caused by the different qualities of the soils to which their applications have been made? Perhaps the field, to which the conductor of the Farmer's Magazine applied dung and litter, which had been turned down fresh in the furrow, and appeared the next spring without any visible change might have possessed some chemical qualities—some salts or acids which prevented the manure from rotting, and preserved it as it were in a kind of pickle for the behoof of posterity. Pure sand will preserve carrots, beets, &c. which are buried in it, much better than loam; and we have doubts whether fresh manure would undergo much alteration if buried in sand, not mixed with other substances.—There can be no doubt but that suffering manure to lie in it loses any considerable part of its weight, before it is used, is not the way to make the most of it. On the other hand, it will, probably, be best to permit it to lie in masses, under cover as much as possible, till it becomes tainted, or fermentation has commenced, before it is spread and ploughed into the soil.

THE NATURE OF THE CROP.

In the choice and application of long or short manure, a suitable regard should be had to the nature of the crop, which immediately succeeds such applica-

tion. If used for crops of wheat, rye, flax, or in short any crops which cannot well be weeded, it should be old, well rotted, and at least have undergone so great a degree of fermentation as will have destroyed the seeds of grass, weeds, &c. which generally abound in fresh barn yard manure. Likewise when used for carrots, ruta baga, parsnips, and indeed all root crops, except potatoes, it should be fine, well rotted, or mixed in composts, which are so well pulverised as to present no mechanical obstacles, such as sticks, straws, or lumps of earth to the growth and extension of the roots. For Indian corn or potatoes however, it may be fresh, and if well covered in the soil, its being coarse and mixed with weeds, straw, &c. will not prevent its proving useful. It may be, however, that the soil will cause it to dry-rot like that mentioned by Judge Peters, or it will not rot at all like that of the conductor of the Farmer's Magazine. In such cases, it might not be amiss to try the virtue of a little quick lime. This substance, however, should not be applied directly to the manure, lest the latter be destroyed by the corrosive quality of the former. The quick lime should be applied directly to the soil itself some time before the application of the manure, in order to neutralize any acid which may be unfriendly to vegetation, or have a tendency to prevent the decomposition of the manure.

(TO BE CONTINUED.)

CATTLE SHOWS, &c.

The Cattle Show and Exhibition of Manufactures of the Middlesex Husbandmen and Manufacturers, will be holden at Concord, Mass. on the 3d of Oct. next.—The Hartford, Conn. Cattle Show, on the 9th and 10th of October.—The Agricultural Society of Maine, will hold their annual Show and Fair, on the 9th of Oct. at Hallowell.—That of the Rhode Island Society for the encouragement of Domestic Industry, at Pawtuxet, on the 16th and 17th of Oct.—The Hampshire, Hampden and Franklin, at Northampton, Mass. on the 24th and 25th of October.—and the Hillsborough, N. H. Cattle Show and Fair, at Amherst, on the 24th and 25th of the present month.

Foreign.—On the 7th July the Ministers and Agents of Russia, Austria, Prussia, France, Denmark, Saxony, Portugal, and the Netherlands, all united in a Note to the Spanish Ministers, in which they declare, in the names of their respective Sovereigns, and in the most formal manner, that "on the conduct which will be observed towards his Catholic Majesty, irrevocably depend the relations between Spain and the whole of Europe, and that the least insult to the King's Majesty would plunge the Peninsula into an abyss of calamities." The British Minister did not join in this peremptory note, but sent a special one, the contents of which are not given.—*Centinel.*

The war between the Greeks and Turks still rages with unabated fury. The Greeks have lately blown up a Turkish ship, by the means of a fire ship intended for the destruction of two of the principal vessels of the Turkish fleet. The vessel which was thus destroyed carried 80 guns, and had a crew of 1700 men, of which about 300 only were saved, the rest having been blown to atoms with the ship.

A dispute between Spain and Algiers on the subject of tribute threatens to terminate in hostilities.

A successor to Mr. Gallatin, at the Court of St. Cloud, is daily more spoken of, since his speedy return to America has been positively announced. It is rumoured that the appointment will be offered to Secretary Calhoun.

Francis Dugan, one of the prisoners so desperately wounded by Trask, in our jail, on the night of the 6th inst. is dead of his wounds. Newman, the other person who was wounded at the same time, it is supposed cannot recover.

Naval Combat.—Capt. Bourne, of the brig *Hippomenes*, arrived at New York in 16 days from Curacao, states that a brother-in-law of Dr. Quackenbush, of this city, arrived at Curacao on the 22d ult. in a schooner from St. Thomas, which place he left on the 15th of August, under convoy of the U. S. schooner *Grampus*. This gentleman informed, that the same evening he sailed from St. Thomas, the *Grampus* was dogged several hours by the privateer *Panchetta*, of Porto Rico—that in the morning the *Grampus* gave chase to the privateer, then under English colors, afterwards changed to Spanish. After being hailed, and informed of the character of the *Grampus*, the privateer fired a broadside into her. The *Grampus* then sheared alongside, and put a full broadside into the privateer, when she immediately surrendered, was boarded, and found in a sinking condition, with eleven men killed and wounded. The *Grampus* towed her into St. Thomas the same night. The *Panchetta* mounted 8 twelve pounders and a long tom, and had 92 men.

N. Y. Statesman.

Election in Vermont.—Although all the returns of votes for Representatives to Congress had not been published at the date of our last accounts from that quarter, there is but little doubt but that Messrs. R. C. Mallary, Charles Rich, S. C. Crafts, D. Azro A. Buck, and W. C. Bradley are elected.

By the last accounts the Yellow Fever continues at New York with unabated malignity.

Boston Cotton.—Several beautiful Cotton Trees are now ripening at Doct. Wakefield's, and at Mr. S. A. Shed's, in Milk street. Some of the trees contain more than a dozen pods, and are worth the attention of the curious to examine them.

Mr. Ware, of Salem, has this year raised a water melon weighing over forty pounds, and several weighing from 30 to 40.

Mr. Israel Putnam, of the same town, picked an apple from his garden a few days since, which weighed one pound five and an half ounces!

Green Corn in September.—Last Saturday, Indian corn in the milk, raised from Alabama seed, by a person in Cranston, was sold in our market at 20 cents a dozen. On an ear of average size we counted 18 rows and 846 kernels. Our gardeners will consult their interest by the cultivation of this new variety, as it comes in when peas, beans, and the ordinary kinds of corn are out of season.—*Providence Journal.*

Worcester Canal.—We learn from a gentleman who has been on the route now under survey, that the whole descent, from Worcester Great Pond to Woonsocket falls is found to be 450 feet. This is much more than was anticipated, and must enhance, considerably, the expense of the work. Another circumstance, however, appears very favourable. On the route, as far as it has been surveyed, the excavation will be very easy, as but little rock is found near the surface.—*ibid.*

Water Spouts on Lake Erie.—Yesterday about ten o'clock, A. M. (says the Cleveland Herald of Aug. 22,) while a cloud hung over the lake, apparently at the distance of about ten miles, the people of this village were entertained at the sight of several water-spouts, which formed themselves, one after another, from the lake to the cloud. They were four in number, of different sizes, and a considerable distance from each other. The cloud being high, and the spouts being black and perpendicular, resembling huge pillars of some mighty fabric, and occasionally changing in their positions, presented a prospect both grand and beautiful. They continued visible for some length of time, and their disappearance was followed by the falling of rain in torrents on the lake, and a slight shower extending itself to this village.

A gentleman in Perth, Scotland, has a hen which lately hatched 20 chickens out of 13 eggs!

WANTED IMMEDIATELY,

A N active, intelligent Boy, 15 or 16 years of age, as an Apprentice to the Printing business. Inquire at the Farmer Office. Sept. 21.

* *Agricultural Chemistry.*

† *Letters of Agricola.*

A MAN TO MY MIND.

Since wedlock's in vogue, and old maids little priz'd,
To all bachelors greeting, these lines are premis'd ;
I'm a maid that would marry, but where shall I find,
(I wish not for fortune) a man to my mind.

Not the dandy, who's hardly of masculine race,
In love with his own precious figure and face ;
Not the free-thinking rake, whom no morals can bind,
Neither this nor the other's the man to my mind.

Not the ruby fac'd sot that topos, world without end,
Not the drone, who can't relish his bottle and friend,
Not the fool that's too fond, nor the churl that's unkind,
Neither this—that—nor t'other's the man to my mind.

But the youth in whom merit and sense may conspire,
Whom the brave must esteem, and the fair should admire ;

In whose heart love and truth are with honor combin'd,
This—this—and no other's the man to my mind.

A MAN NOT TO MY MIND.

From the man whom I love, though my heart I disguise,
I will freely describe the wretch I despise ;
And if he has sense but to balance a straw,
He will sure take the hint from the picture I draw.

A wit without sense, without fancy a beau,
Like a parrot he chatters, and struts like a crow ;
A peacock in pride, in grimace a baboon,
In courage a hind, in conceit a gascoon.

As a vulture rapacious, in falsehood a fox,
Inconstant as waves, and unfeeling as rocks ;
As a tyger ferocious, perverse as a hog,
In mischief an ape, and in fawning a dog.

In a word, to sum up all his talents together,
His heart is of lead, and his brain is of feather ;
Yet if he has sense but to balance a straw,
He will sure take the hint from the picture I draw.

MISCELLANEOUS.

LADIES—BEWARE!

[The following will serve as a caution to females, against the impositions which are often practiced upon them, to their mortification, shame and ruin. Let them prefer, as suitors and husbands, those whose characters and circumstances are known to them, and not trust to the oily tongues, and vain pretensions of foreigners and strangers, who, under the disguise of a fine dress, and genteel manners, often conceal the most villainous designs.]—*Salem Register.*

Reported for the Philadelphia Union.

A European, who had a wife and several children in his own country, not thinking himself well treated by his wife's family, determined, as soon as he could compass fifty pounds, to try his fortune in America. After he arrived in Philadelphia, reflecting that he was a great way from home, and that many circumstances might happen here which would never be heard of in Europe, he changed his name and took up his abode at a hotel, where his fifty pounds were soon reduced to 1 dollar 13 3-4 cents. He then thought it time to look out for other quarters, and accordingly removed very quietly to a private boarding house, where a fine young woman soon attracted his attention. In due time she consented to become his bride, and the marriage ceremony was properly solemnized.

Hitherto nothing had occurred to give reason to suppose that our gentleman was any how different from what he professed to be, unless it were an odd letter which was now and then picked up about the house, addressed to Mr. D.

O. S. but which excited more amusement than suspicion. On a certain day, however, when he walked out with his bride, he was met by a countryman of his, who, after accosting him with great familiarity, enquired after the health of his wife and children. Our gentleman returned the salutation with cordiality, but perceiving his fair companion was alarmed by the interrogation, he abruptly broke off the conversation with the stranger. The rest of the afternoon was spent in accounting to the lady for the strange scene which he had lately witnessed. Inquiring after the health of the wife and children of unmarried men was, he said, a very common joke in his own country, and she, having an interest in being deceived, believed him.

His countryman, however, offended at the abruptness of his conduct, dogged him home, and a few days afterwards called to enquire for him by his real name. The letters were then remembered, and the fears of an old lady in the family so alarmed, that she laid information before a magistrate, who sent an invitation to our gentleman to appear before him. "Ah!" said he, after he had read the summons, "another invitation to dinner. Upon my honour, if I could eat fifty dinners a day I might have them all. However I shall accept of this, as I know the giver is a good kind of a fellow." He went accordingly, and, though surprised to find his wife and some of her relations there before him, still had the effrontery to offer the magistrate his hand. This the latter refused to receive till he had read the charges against him—bigamy and imposition. "Good God, Sir," said our gentleman, "don't stain my honor with such imputations. Allow me till to-morrow and I will produce letters and witnesses that will avouch for my respectability." The magistrate, after consulting with the parties agreed to this arrangement; but that night our gentleman disappeared and has not been heard of since.

From the New York Statesman.

"*Love has eyes.*"—The Westchester Herald states, that a villain of the name of William Rosler, was detected in robbing the store of Michael Marks, by a young lady and gentleman who, as the term goes, were *keeping company* in the house opposite the scene of burglary.—While they were prolonging their midnight vigils, indulging in some wakeful dreams of nuptial felicity, they saw the villain enter the store through the window, and when he was cleverly in, young Damon stepped across the road, made all fast, and gave the alarm, which resulted in the easy apprehension of Rosler.—The paragraph cautions all robbers to beware of attempting depredations *between the hours of ten on Sunday evening, and day-break on Monday morning*, which is "the witching time of night" with village lovers. Fortunate would we be, if we had guards equally wakeful in the infected district.

Old Seed.—However valuable ancestry may be in the eye of a man of family, it is in little estimation in that of farmers, if we may judge by the reply a country lad made to one who was boasting of his *ancient family*. "So much the worse for thee"—said he—"every body knows the older the seed, the worse the crop."

From the American Statesman.

The Office of the Philadelphia *Union* lately took fire. The manner in which the accident occurred is very pleasantly related in the following paragraph, which subsequently appeared in that paper:—

"The report which the wags are circulating that the fire at our office on Thursday evening originated in the spontaneous combustion of a number of political articles of a highly inflammatory character, is totally destitute of foundation. We do not deal in such dangerous ware. The truth is, that our "devil" was endeavoring to purify a number of communications by fire, but not being careful enough of the process, the flames unfortunately spread to a number of poems in manuscript, (the collections of the last two years,) which, by reason of the *spir* contained in them, made a fine crackling blaze and finally exhaled in fumes ethereal. The went off in a most glorious smoke, but burned so furiously at first as to scorch the wainscoting of the room, and burn a hole through the floor. We trust that our poetical friends will now see the propriety of not burdening us in future with so many *original verses*. We always consider them very dangerous articles."

MR. BRAHAM, THE SINGER.

It is reported that this stage songster is about to honor us by leaving England to sing for one year, for the moderate sum of *forty thousand dollars*! The editors of the National Intelligencer, noticing this matter, have observed, "we shall be glad to hear what our friend Niles will say to this folly." All that is needful to say easily said—"friend Niles" pays nothing England for his *coats*, and will not pay any thing to *transient* Englishmen for *songs*—though pleased to hear good music on rightful occasions at reasonable terms. Yet the managers of our theatres may make money by exposing the musical biped to the public—and persons will spend ten or twenty dollars to hear him, who have defrauded their honest creditors out of scores of thousands, or suffer themselves to be *dunned* by those who supply them with *milk* for their coffee and tea. It is even yet *à la fashion* rather to be extravagant than to be honest—though the state of society is evident improving; more perhaps, of necessity, than from inclination.—*Niles' Register.*

JUDICIAL PLEASANTY.

A lawyer, now deceased, a celebrated wag, was pleading before a Scotch Judge with whom he was on most intimate terms. Happening to have a client, a *female*, defendant in an action of the name of *Tickle*, he commenced his speech in the following humorous strain:—"Tickle my client, the defendant, my lord." The auditors, amused with the oddity of the speech, were almost driven into hysterics of laughter by the Judge replying—"Tickle her yourself, Harry; you're as able to do it as I."

LA FONTAINE.

A worthy Antiquary was one day edifying the French academy with a monstrous long dissertation of the comparative price of commodities at different periods, when La Fontaine observed "cet homme censure le prix de tout excepté les temps." "This man knows the price of everything except time."

NEW ENGLAND FARMER.

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VOL. I.

BOSTON, SATURDAY, SEPTEMBER 28, 1822.

No. 9.

CONSIDERATIONS ON THE NECESSITY OF ESTABLISHING AN AGRICULTURAL COLLEGE,

and having more of the children of wealthy citizens educated for the

PROFESSION OF FARMING.

(Concluded from p. 58.)

What the precise construction, organization, and discipline of the agricultural college ought to be, I shall not at present presume to define. They ought to be well digested in the outset, but whatever may be the wisdom engaged in it, like all other institutions, time only can bring it to perfection. Experience must teach what will finally make it what it ought to be, to answer all its intended purposes. The outlines of it only can now be attempted.

As usual, its concerns will be committed to a board of trustees. Its faculty will consist of a president and professors of the several branches to be taught, the chief of which will be one for the theory and another for the practice of agriculture, besides others for such appendant branches as may be judged necessary, particularly chemistry and botany. What the business of each is to be may be easily conceived, except that of the *professor of practical agriculture*, who is to be literally what the title imports, and whose duties it may not be amiss more minutely to consider, as it is he who is to make him, who is previously or simultaneously instructed in the necessary scientific parts, the *perfect practical farmer*.

Much will depend on the choice of this professor. He should himself understand all that relates to the theory, and besides have been so far engaged in the actual practice of farming as to be thoroughly acquainted with all the methods already successfully adopted. He must be capable of making all prescribed experiments in the best manner, and of stating true comparisons between their results and the customary practice: He must know how to make all the arrangements for the work to be done, and direct every part of it to its proper end, so as to produce the best and greatest effects with the least loss of time. On this faculty more depends than is generally conceived; for it is a well known fact that by skillful management one person will obtain much more from his laborers than another, although both may in other respects understand their business equally well.

This professor will of course have the superintendence and direction of the labor of the students *in the field*. What will be required of them there next demands consideration. It has already been observed that they must learn to work; and this is to be an essential object of the institution, for without knowing how to perform, with their own hands, every kind of work belonging to the profession they intend to pursue, they never can become sufficiently acquainted with it or qualified to conduct it to advantage.

It will be readily perceived that to such an institution must belong a farm of sufficient extent and variety of soil for all the practice and experiments that may be required to carry its views into the completest effect; and this farm

is to be made not only instructive, but, if possible, profitable also. For certain regularly allotted portions of time, the students are to be employed on it and practice every species of work that may be requisite; such as plowing, harrowing, sowing, planting, reaping, hay-making, threshing and preparing every thing for market; and they are to be practically instructed in the selection, qualities, management and value of cattle; in short in every thing with which a farmer ought to be thoroughly acquainted, and which he ought to be able to do.

Instead of giving formal lectures, this professor, who must constantly attend his classes while thus engaged, will, during the progress of their work, explain to them the best manner in which every thing is to be done, the reason of it, and the errors that are or may be committed in it; on all which, the students will be required to make notes and comments at their hours of relaxation, and undergo examinations at stated times. And as hired laborers will besides be necessary, the very best should be selected to give examples of the most proper manner of performing every branch of business, and of the time in which it can and ought to be done.

The knowledge of gardening, inoculating, grafting, and the best manner of propagating fruit trees and shrubberies, will also be taught by engaging the students in the same way in actual practice.

Every farmer ought to be able to repair his implements when out of order, without suffering, on every such occasion, the loss of time and expense to which the sending for the proper mechanic would subject him. A workshop provided with all necessary tools will therefore properly be a part of the establishment. Some exercise here will give to all the students an agreeable variety of employment, and to those who have a mechanical turn it will be as gratifying as useful. Here also ought to be collected models of all the best implements of husbandry, of which the respective merits will not only be explained by the proper professor but proved by actual trial.

Books will be kept in which will be entered in detail, all the transactions of the farm, and periodical statements of results, with accounts of profit and loss; and these the professors may make the subjects of useful and profitable lectures.

Public examinations on theory and practice, and exhibitions of work will be appointed, honors awarded and diplomas given as evidences of superior merit on a completion of education. And these when justly estimated, as undoubtedly they will be, must give title to a precedence before those who hold licences for following any of the liberal professions.

Here will also be taught, both by precept and example, that frugality, temperance and economy, of time as well as of expense, which are equally essential with skill in the profession for its successful prosecution; lessons of the utmost importance to those young gentlemen who may have been contaminated by the customs of cities; customs, which besides fostering idleness and dissipation, prescribe innumerable costly

delicacies, as useless to adults as pernicious to children. And it is sincerely to be regretted, that so many of the farmers of our country depart from a better manner of living for the purpose of aping, in an awkward way, the more irrational style introduced, partly by necessity, and partly by a ridiculous vanity, among the inhabitants of cities. By such frugality and economy will be taught the secret, of possessing, at all times in abundance, the means of a better living than such citizens enjoy; if by better living be understood what is more according to nature, more highly relished by an unvitiated palate, and more conducive to health, the *sine qua non* of every enjoyment.

It is well known that there are men laboring under an incurable infirmity, or delicacy of constitution, for which is assigned, as the most probable cause, their having been pampered, when young, with fashionable dainties. To have the effects of such practices corrected, as early and as effectually as possible, is therefore, to any such unfortunate individual, a matter of the highest importance, and to do this will be one, among the many other good offices of the proposed institution. Foreign luxuries will be discarded, and the food will be, as it ought to be, with every agriculturalist as far as possible, the *sole produce of the farm*, and that will be made, independent of all other sources, to yield in abundance, all the prime luxuries of life.

* * * * *

If cheering or exhilarating beverages are necessary, and some thing of the kind seems, from the practice of all ages, to be allowable, if not actually beneficial, while reason does not condemn their use in moderation, we have them of the most innoxious kind and the most grateful variety, without resorting to places beyond our own territories for them. Our cider, were it not for the unaccountable prejudices of taste, would be deemed superior to the ordinary wines of Europe; and every family, with a little instruction in the process, could make its own beer of sufficient excellence, or it might be had from the best brewers by a ready exchange of produce. To send our money abroad for any such luxuries cannot then be considered otherwise than as a wanton waste of property and a mistaken apprehension of what is necessary to support true dignity of character.

A family of middling size will, in the course of a year, use *thirty-five dollars* worth of coffee, and probably its tea and sugar for suppers will cost as much, making *seventy dollars*. This is a serious sum to be paid every year for *mere luxuries* by any farmer and especially by new beginners: It is the interest of *one thousand dollars*, for which a little farm might be bought and many a good one rented. But this is only a part of the useless expenses of our countrymen. Add to it what is laid out for spiritous liquors without taking into the account unnecessary fineries of foreign manufacture, and many other useless items, and the amount will appear still more serious.

If any thing can be done towards this reformation by the agricultural college, thus second-

ed by agricultural societies, the immense good it may do even in this incidental branch of its objects, presents its importance in a point of view that must still more forcibly arrest our attention.

Here an enchanting picture might be drawn of the happiness which will intermingle itself with the little hardships of the tasks to be performed by the young gentlemen that shall fill such a college; tasks which, notwithstanding the sternness of their aspect, as portrayed in this treatise, will, by habit, have every repulsive feature obliterated, and become attractive by the group of pleasures that will, on a more intimate acquaintance, be found playing around them; but enough has already been said to give an idea of what the *Agricultural College* is intended to be, and what may be expected from it. I shall take leave of the subject by recommending it to the serious consideration of the legislature, confident that, if it be deliberately examined, there will be a unanimous disposition to give it a *being*, and a *support* commensurate with the importance of the purposes intended to be effected by it.

BRIGHTON CATTLE SHOW.

Rules and Regulations to be observed at the Cattle Show, Exhibition of Manufactures, Ploughing Match, and Public Sale of Animals and Manufactures, at Brighton, on Wednesday the 9th, and Thursday the 10th of October, 1892.

I.—As the Names of the Committees for awarding Premiums will be published, all persons having business will attend their own Animals or Articles, at 9 o'clock each day, as it is intended that the Committees should commence their examination, punctually, at that hour; and at 1 o'clock, on Wednesday, the 9th Oct. a procession will be formed in the spaceway between the Pens, by the Marshals, and will proceed to the Meeting House, where Prayers will be offered, and an Address delivered by the Hon. TIMOTHY PICKERING.

II.—All Stock, entered for Premium, must be put in the Pens at 3, A. M. according to the numbers on their Tickets, as furnished by the Clerk, and under the direction of the Marshals.

III.—Gentlemen who have *Fine Animals*, not intended to be offered for Premiums, will gratify the Society by exhibiting them in their Field, where Pens will be allotted to them, subject to the same rules with those who contend for Premiums.

IV.—No Animal can be removed from the Pens but by permission of a Marshal or Trustee.

V.—The avenue between the ranges of the Pens, is intended exclusively for the *Trustees, Committees, Members of the Society*, and invited persons; it is therefore requested and expected, that no other person enter the same, but at the invitation of one of the Trustees; but the *Field* will be free to all.

VI.—All Articles, under the head of "*Domestic Manufacture*," it must be carefully noticed, are to be deposited in the Society's Rooms, on Monday the 7th, to be examined by the Committee, on Tuesday the 8th, *being the day before the Cattle Show*. Persons offering them, will hand to the Secretary, the necessary Certificates of the growth of the Wool and Flax, and of the Manufacture, being within the State of Massachusetts, as they are not permitted

themselves to be present at the examination by the Committee; but they are expected afterwards to see to their own goods, which are not allowed to be removed from the Hall, until after the public sale on the 10th.

VII.—All persons offering Articles under the head of "*Inventions*," will place them in the Lower Hall, as directed by the person who will be there to receive them, on *Tuesday the 8th*, and on *Thursday the 10th*, at 9 A. M. they will attend the Committee, furnished with evidence of their usefulness, &c. agreeably to the premium list.

VIII.—Those persons offering *Working Oxen*, (having regularly entered them,) will arrange them in the Society's Field, under the direction of a Marshal, and must thereafter be under the direction of the Committee for that purpose.

IX.—Those persons, who have entered *Ploughs for the Match*, will have them in the field designated for that purpose, and be ready to start at 9 A. M. of the 10th.

X.—The following Gentlemen being appointed Marshals, Col. LUSHER GAY, Maj. WHEELER, W. TILESTON, and G. W. BEALE, Esq's. it is expected that every person having business at the Show, will follow their directions, as also those of the Trustees of the Society, so that proper order and regularity may be supported.

XI.—As the Chairman of each Committee will prepare their own Rules and Regulations, it is expected and required, that all persons having business with either Committee, will govern themselves accordingly.

XII.—The Premiums will be awarded on the 10th, at 4, P. M. in the Meeting House; and the Treasurer will immediately after, in the Society's Hall, pay all premiums awarded to persons living more than ten miles from Boston; and all others are requested to call on him within ten days.

XIII.—The examination of *Animals*, will be on Wednesday the 9th, and the trial of *Working Oxen*, the *Ploughing Match*, the examination of *Inventions*, and the sale of *Animals and Manufactures*, will be on the 10th of October.

XIV.—All Fat Animals must be weighed before entering the Pens, at the expense of their owners.

XV.—Animals to be sold at Public Auction on the 2d day of the Show, (agreeably to notice in the Hand Bill for Premiums,) must be entered, and a description of the same given the Secretary on the 9th, to enable them to enter the proper Pens, on the morning of the 10th; the sale whereof, will commence in regular order at half after 11 o'clock, precisely. An Auctioneer will attend to the sale, free of charge to the owners, who must be responsible for the delivery of their own Animals, in conformity to the conditions of the sale. The sale of *Manufactures* will commence in the Hall, at 12 o'clock. Proprietors of Goods will have a list prepared to hand to the Auctioneer; they are also expected to collect their own monies; it being fully understood, that the Auctioneer is only to *bid off* the same, free of any expense; and the sale will commence with the first entry, and proceed on regularly.

XVI.—Any Members of the Society who have not received their Certificates, will find a person attending for that purpose, at their Office in the Agricultural Hall, who will deliver them, on payment of Five Dollars, the sum agreed

upon instead of all annual assessments. The same person will also, on application in season, furnish Tickets for the Dinner.

XVII.—The Hall will be opened, on Wednesday the 9th, between the hours of 9 and 12, for the sole purpose of giving Ladies an opportunity of viewing the Manufactured Articles. Some of the Trustees will be there to wait upon them.

GORHAM PARSONS,
JOHN PRINCE,
P. C. BROOKS,
S. G. PERKINS, } Committee
of
Arrangements.

September, 1892.

FACTS AND OBSERVATIONS RELATING TO AGRICULTURE & DOMESTIC ECONOMY.

TO MAKE SALT BUTTER FRESH.

Put four pounds of salt butter into a churn, with four quarts of new milk, and a small portion of arnatto; churn them together, and in about an hour, take out the butter, and treat it exactly like fresh butter, by washing it in water, and adding the customary quantity of salt. Firkin butter, brought in autumn, and churned over again in winter or spring, will be greatly enhanced in value; at least so says the Domestic Encyclopedia.

AXIOMS IN HUSBANDRY.

The following maxims are by Thomas Cooper, Esq. M. D.

1. Two crops of grain should not succeed each other; they should be separated by potatoes, clover, grass, turnips, beets or carrots, for stall feeding.

2. Good agriculture requires no naked fallows: fallow crops [any hoed crops] that compel you to keep the ground clean while they are growing, answer the purpose.

3. Manure once in four years.

CURING TAINTED MEAT.

Meat which has been kept too long in summer may be deprived of its bad smell by putting it in water, and throwing into the pot, when beginning to boil, a shovel full of live coals, destitute of smoke; after a few minutes have elapsed the water must be changed, when the operation, if necessary, may be repeated.

PRESERVING MEAT.

Meat surrounded by charcoal will keep for months.

BED BUGS.

The last American edition of Willich's Domestic Encyclopedia contains the following recipes against those nauseous insects:

Take of the highest rectified spirit of wine, half a pint; newly distilled spirit of turpentine, half a pint; mix them together, and crumble into it an ounce of camphor, which will dissolve in a few minutes; shake the whole well together, and with a piece of sponge or brush dipped into it, anoint the bed or furniture in which those vermin harbor and breed, and it will, infallibly, destroy both them and their nits.—Should any bug or bugs happen to appear after once using it, the application must be repeated, and at the same time some of the mixture poured into the joints and holes of the bedstead and head-board. Bedsteads that have much wood work require to be taken down before they can be thoroughly cleansed of these vermin; but

others may be perfectly cured without that trouble. It is advisable to perform this work in the day time, lest the spirit contained in the mixture take fire from the candle, while using it, and occasion serious damage.

2. Dissolve 100 grains of corrosive sublimate in a pint of brandy: use it with the feather of a quill.

3. Half an ounce of corrosive sublimate, powdered and dissolved in a quart of spirits makes an effectual wash for bedsteads infested by bugs. They must be previously scrubbed with cold water and well dried.

In England, cast iron bedsteads are much in use for hospitals, &c. and are recommended as affording no harbor for vermin.

THE BREEDING OF CATTLE.

Dr. Cooper, Editor of the last American edition of Dr. Willich's Domestic Encyclopedia, observes that—"The whole art of breeding animals and vegetables for particular purposes, may be included in the direction. *choose those animals or vegetables to propagate from, that possess the qualities you wish to propagate in the greatest perfection.*"

To destroy the bee miller.—This troublesome insect is making great ravages among the bees in this vicinity. A subscriber has requested us to state that he had discovered an effectual method of destroying them, which is as follows; To a pint of sweetened water, (sweetened with sugar or honey) add a half a gill of vinegar; set this in an open vessel on the top of the hive; and at night, when the miller comes to his work of destruction, he will prefer this composition, and diving into it, will immediately drown.—This simple method, our informant assures us, is certain of success. At all events it is worthy of attention; and we would recommend to the owners of bees to make a trial of it.—*Lake George paper.*

From the Old Colony Memorial.

SIR—The inquiry, which has been instituted in the Memorial respecting the worms which are making such devastation of the grass and Indian corn, and the observations consequent thereof, have drawn so much attention to the subject, as to ascertain, that this is not "a new thing under the sun." In the annals of the Cotton Family (one of the most respectable in the Commonwealth) which have been continued from the first settlement of the country, are noted many extraordinary events and seasons (extraneous of the concerns of the family:) among others it is there noted, that "1745 was remarkable for the destructive effects of the worms which almost destroyed the grass." There is also now living in this vicinity, a respectable farmer, aged 87, who well remembers that when a boy, he with others, amused themselves by rolling up the sward, which was destroyed by the worms, striving who could make the largest roll—allowing this man to have been 10 years old at that time, and it reduces it to 1745, the period noted in the annals; and he further states, the worms were of similar appearance of those now present.—There are also others who state, that a year during the revolutionary war they made great ravages both in the corn and grass. From these facts perhaps it may be inferred that their appearance is rather period-

ical than extraordinary, and if the different times of their appearance had been all observed and noted, with the precision they are in the annals above alluded to, we might perhaps, ere now have ascertained the period of their expected return, and possibly some means of counteracting or limiting their ravages. The greatest advantage perhaps that may now be expected to be derived from the attention excited to this subject, is the obtaining more minute observations of the times of their appearance—the time of their continuance—and, if possible, the manner of their reproduction, and whether their appearance is consequent of a season remarkable for drought.

Yours, P.

A gentleman of this town (Plymouth) has constructed a drill for the purpose of sowing Ruta-Baga or other small seeds, which embraces the two great points of cheapness and simplicity. It may be constructed by any farmer of ordinary mechanical ingenuity with his hand-saw, hatchet, and knife; it can be worked by a boy 12 years of age, and does the work with neatness and dispatch.—*ibid.*

Camphor trees.—These trees grow in the Island of Sumatra. A letter from a traveller published in an Edinburgh Journal, describes them as being often 100 feet perfectly straight to the first branch. The camphor is found in masses, in cracks and hollows in the heart of the tree. It is chiefly carried to China, where it bears a price about 30 times that of the China camphor. It is the latter that is brought to Europe and America. It is obtained by boiling. The Sumatra camphor tree also yields a powerful oil. It flowers only once in four or five years.

Hampshire Gazette.

Divining Rods.—It is stated in an extract published in the Palladium, that a piece of gold, silver, or any other metal, suspended to the end of a very slender switch, when carried over a mine of the same metal, will be so attracted as to bend the end of the stick. The writer tried an experiment with a pair of curious scales. He put a shilling piece of silver into one scale and made the beam perfectly level by weights in the other; a block of silver, 6 inches square and two inches thick, was then introduced under the scale that had the shilling; that end of the beam dropped a quarter of an inch, and stood there until the block was removed and then immediately returned to a level; this was repeated several times with the same effect.

ibid.

The Cotton Manufactory, at Waltham, is owned by gentlemen of Boston, and is unquestionably the most extensive of any one in the United States.—We have heard it stated that the capital is six hundred thousand dollars. About 500 workmen are employed, (but few boys or girls,) nearly all of whom are Americans. The weekly expenses are about 2000 dollars, which amount to upwards of one hundred thousand dollars in a year. There are manufactured thirty-five thousand yards of cloth in a week, or in a year, one million eight hundred and twenty thousand yards! which cloth, for shirting and sheeting, is daily gaining credit in every section of the Union. The machinery, too, is in many respects

superior to the English; so that this extensive establishment may emphatically be styled the pride of America.—*Boston Gazette.*

From the New York Commercial Advertiser.

"—But who is she,
Her dark hair streaming on her brow, her eye
Wild, and her breast deep-heaving? She oft gaz'd
At distance for the white sail, nor wept, nor spoke,
And now is gone."

A coroner's inquest was held at West Point on Thursday, on the body of a woman named — M'Ginn, who was found dead among the rocks at the foot of the high cliff which overhangs the favorite retreat or grotto of Kosciusko, where that officer was wont to regale himself and friends with wine, after dinner, while stationed there during the revolution. The verdict accidental death.

The circumstances that have marked the life of this humble woman, and her now unhappy husband, have been in some respects romantic; and her conduct since her marriage, has afforded one of the strongest examples of constant and ardent affection. And what is most remarkable is, that it was the intensity of her affection that caused her untimely death. It appears that they were acquainted in Ireland, but as no peculiar attachment existed between them, they emigrated to this country separately and at different times. By accident they met, either at West Point or near the Foundry on the opposite side of the river, a few years since; soon after, it was agreed that they would be married whenever Patrick should have raised a certain sum of money. Patrick then went away and labored hard and lived prudently, until he had accomplished that object, when he returned and was rewarded for his toil by the heart of the object of his affection. Their lot was cast in the humble walks of life, it is true, but never did a couple live more contented and happy than they. And whenever Patrick has been called away on business, if detained longer than was anticipated, she knew neither rest nor slumber until his return. It is but a short time since Patrick went to Newburgh in a boat, where he was detained all night, and such was the faithful wife, that she sat upon a cliff that overhangs the river, or walked upon the edge of the rugged steep, until the boat came safe to the shore in the morning. And often has she counted the solitary hours, as they passed tediously on, in the same manner, while no sounds broke upon the dull hours of night, save the howling of the rude winds above, and the dashing of the surge against the rocks below, mingled occasionally with the stern voice of the weather-beaten sentinel, as he slowly paced his solitary round or perchance the gloomy screech of the lone bird of night. On the morning of the fatal day, Patrick went in an open boat to the mills at Buttermilk Falls, about two miles below, and she had prepared to visit some friends on the opposite side of the river, but would not go until his return. He was absent longer than was expected, and she repaired to the wonted place of watching, and seated herself upon a craig which shelved over the deep and dark abyss beneath. Night came on, and the faithful creature probably overcome by fatigue and anxiety, dropped asleep, fell, and was dashed in pieces. In the morning her shawl was found upon the rock, and her lifeless body among the fallen fragments, 170 feet below!

From the American Farmer.

We are indebted to Mr. Thomas Wright, of England, for a copy of "The Graziers' Ready Reckoner," and we have his assurance that the most confident reliance may be placed in its accuracy; he told us that he would not fear to purchase or sell extensively by this guide, which has passed through three English editions, and has in that country gone into very general use. The author of the tables, gives the required weight of animals in stones, and we have converted these for the use of our subscribers, into pounds.

The Graziers' Ready Reckoner, or, a useful guide for buying and selling Cattle, being a complete set of TABLES, distinctly pointing out the Weight of Black Cattle, Sheep, or Swine, from forty two, to eighteen hundred and twenty, by measurement; together with directions, showing the particular parts where the Cattle are to be measured. By GEORGE RENTON. Berwickshire Farmer. The third edition. Berwick: price 2s. 6d. sterling.

PREFACE.

Having been often solicited to publish the following TABLES of this READY RECKONER, I am now prevailed on to do so. I by no means take the praise of them as the inventor; but have undergone a laborious task in making out the calculations, which may be of use to the public. For frequently the Buyer and Seller are at a loss even in concluding a bargain, by not being judges of the weight of the article they are treating about.

I have begun with the Calculations at three stones,* which may be as low as is necessary for those who have a swine or calf to sell; and who by no means have had such practical experience as to be judges by the eye. It may likewise be of service to those who have a beast above the common weight of cattle; they may obtain a knowledge of his value, almost to a nicety, by taking the following dimension, and considering the value per stone, sinking offals.

Take a string, put it round the beast, standing square, just behind the shoulder blade, measure on a foot rule the feet and inches he is in circumference, this is called the girth; then with the string measure from that bone the tail which plumbs the line with the hind part of the buttock, direct the line along the back to the fore part of the shoulder blade, take the dimensions on the foot rule as before, which is length, opposite these figures stand the pounds.

The girth and length of Black Cattle, Sheep, Calves or Swine being exactly taken, according to the directions given above, and wrought by decimals, would occasion a multiplicity of figures, which would be very troublesome in comparison of the following Tables, which will answer exactly to the fore quarters of any of the forementioned cattle, sinking the offal.

To bring these useful Tables into as small a compass as possible, I have not taken notice of the half inches, which confines them to the one-fourth of the figures. But to bring them to that point, when a beast measures half an inch, either in girth or length, it is only taking the difference of the leading figures. For instance, a beast measures in girth 6 feet 2 1-2 inches, length 5 feet 4 inches, the weight of

6 feet 3 inch. 697

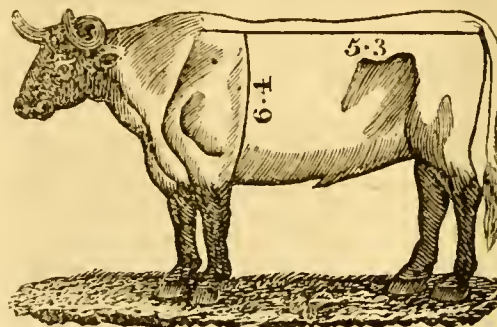
6 " 2 " 678

Difference

19

Take the half of 19 which is 9 1/2 added to 678 and it will make 687 1/2.

To render the following small treatise as generally useful as I can, and to prevent the possibility of making any mistakes in taking the dimensions of the Cattle in improper places, I have engaged an ingenious engraver to represent the figure of an Ox, pointing out the particular places where the dimensions must be taken, in order to ascertain their weight, and I flatter myself it will be a very useful addition.



706 lbs.

To a generous public I now commit it, and hope, that, however it may succeed, the goodness of my intention will be a sufficient justification of my conduct.

GEORGE RENTON.

Girth.	Length.	Weight.
ft. in.	ft. in.	pounds.
2 6	2 0	42
	2 1	43
	2 2	45
	2 3	46
	2 4	48
	2 5	50
	2 6	52
2 7	2 0	45
	2 1	46
	2 2	48
	2 3	50
	2 4	52
	2 5	53
	2 6	56
	2 7	57
2 8	2 0	46
	2 1	49
	2 2	50
	2 3	53
	2 4	55
	2 5	57
	2 6	59
	2 7	60
	2 8	63
2 9	2 0	50
	2 1	52
	2 2	55
	2 3	56
	2 4	59
	2 5	60
	2 6	63
	2 7	64
	2 8	67
	2 9	69
2 10	2 0	53
	2 1	55
	2 2	57
	2 3	60
	2 4	62
	2 5	64
	2 6	67
	2 7	69
	2 8	71
	2 9	73

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	2 6	56
	2 7	57
2 8	2 0	46
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	2 6	59
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	2 9	73

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	2 1	49
	2 2	50
	2 3	53
	2 4	55
	2 5	57
	2 6	59
	2 7	60
	2 8	63
2 9	2 0	50
	2 1	52
	2 2	55
	2 3	56
	2 4	59
	2 5	60
	2 6	63
	2 7	64
	2 8	67
	2 9	69
2 10	2 0	53
	2 1	55
	2 2	57
	2 3	60
	2 4	62
	2 5	64
	2 6	67
	2 7	69
	2 8	71
	2 9	73

Girth.	Length.	Weight.
ft. in.	ft. in.	pounds.
2 6	2 0	42
	2 1	43
	2 2	45
	2 3	46
	2 4	48
	2 5	50
	2 6	52
2 7	2 0	45
	2 1	46
	2 2	48
	2 3	50
	2 4	52
	2 5	53
	2 6	56
	2 7	57
2 8	2 0	46
	2 1	49
	2 2	50
	2 3	53
	2 4	55
	2 5	57
	2 6	59
	2 7	60
	2 8	63
2 9	2 0	50
	2 1	52
	2 2	55
	2 3	56
	2 4	59
	2 5	60
	2 6	63
	2 7	64
	2 8	67
	2 9	69
2 10	2 0	53
	2 1	55
	2 2	57
	2 3	60
	2 4	62
	2 5	64
	2 6	67
	2 7	69
	2 8	71
	2 9	73

Girth.	Length.	Weight.
ft. in.	ft. in.	pounds.
2 6	2 0	42
	2 1	43
	2 2	45
	2 3	46
	2 4	48
	2 5	50
	2 6	52
2 7	2 0	45
	2 1	46
	2 2	48
	2 3	50
	2 4	52
	2 5	53
	2 6	56
	2 7	57
2 8	2 0	46
	2 1	49
	2 2	50
	2 3	53
	2 4	55
	2 5	57
	2 6	59
	2 7	60
	2 8	63
2 9	2 0	50
	2 1	52
	2 2	55
	2 3	56
	2 4	59
	2 5	60
	2 6	63
	2 7	64
	2 8	67
	2 9	69
2 10	2 0	53
	2 1	55
	2 2	57
	2 3	60
	2 4	62
	2 5	64
	2 6	67
	2 7	69
	2 8	71
	2 9	73

Girth.	Length.	Weight.
ft. in.	ft. in.	pounds.
2 6	2 0	42
	2 1	43
	2 2	45
	2 3	46
	2 4	48
	2 5	50
	2 6	52
2 7	2 0	45
	2 1	46
	2 2	48
	2 3	50
	2 4	52
	2 5	53
	2 6	56
	2 7	57
2 8	2 0	46
	2 1	49
	2 2	50
	2 3	53
	2 4	55
	2 5	57
	2 6	59
	2 7	60
	2 8	63
2 9	2 0	50
	2 1	52
	2 2	55
	2 3	56
	2 4	59
	2 5	60
	2 6	63
	2 7	64
	2 8	67
	2 9	69
2 10	2 0	53
	2 1	55
	2 2	57
	2 3	60
	2 4	62
	2 5	64
	2 6	67
	2 7	69

Girth. Length. Weight.			Girth. Length. Weight.			Girth. Length. Weight.			Girth. Length. Weight.			Girth. Length. Weight.			Girth. Length. Weight.				
ft. in.	ft. in.	pounds.	ft. in.	ft. in.	pounds.	ft. in.	ft. in.	pounds.	ft. in.	ft. in.	pounds.	ft. in.	ft. in.	pounds.	ft. in.	ft. in.	pounds.		
4 1	3 4	186	4 6	3 3	220	4 11	3 4	270	5 3	4 7	424	5 8	4 0	431	6 0	5 2	623		
	3 5	190		3 4	225		3 5	277		4 8	431		4 1	438		5 3	634		
	3 6	196		3 5	231		3 6	284		4 9	437		4 2	447		5 4	643		
	3 7	200		3 6	237		3 7	291		4 10	447		4 3	456		5 5	654		
	3 8	204		3 7	242		3 8	298		4 11	455		4 4	465		5 6	665		
	3 9	210		3 8	248		3 9	305		5 0	462		4 5	475		5 7	672		
	3 10	214		3 9	253		3 10	311					4 6	483					
				3 10	260		3 11	318		5 4	3 8	349		4 7	493	6 1	4 3	528	
4 2	2 6	144		3 11	266		4 0	325			3 9	357		4 8	501		4 4	538	
	2 7	148		4 0	271		4 1	332			3 10	364		4 9	511		4 5	546	
	2 8	154					4 2	337			3 11	372		4 10	518		4 6	555	
	2 9	158	4 7	2 8	188		4 3	346			4 0	381		4 11	528		4 7	568	
	2 10	164		2 9	193		4 4	351			4 1	389		5 0	538		4 8	578	
	2 11	168		2 10	199				5 0	3 6	294		5 1	546		4 9	589		
	3 0	174		2 11	204					4 3	405		5 2	554		4 10	599		
	3 1	179		3 0	211		5 0	3 7	301		4 4	409		5 3	561		4 11	605	
	3 2	183		3 1	217			3 8	307		4 5	421		5 4	573		5 0	622	
	3 3	188		3 2	223			3 9	314		4 6	428	5 9	4 0	441		5 1	631	
	3 4	193		3 3	228			3 10	321		4 7	437		4 1	451		5 2	641	
	3 5	197		3 4	234			3 11	328		4 8	444		4 2	462		5 3	652	
	3 6	203		3 5	239			4 0	336		4 9	452		4 3	476		5 4	662	
	3 7	207		3 6	246			4 1	342		4 10	461		4 4	483		5 5	672	
	3 8	213		3 7	252			4 2	349		4 11	469		4 5	490		5 6	683	
	3 9	217		3 8	258			4 3	353		5 0	476		4 6	500		5 7	693	
	3 10	223		3 9	263			4 4	363		5 1	484		4 7	508		5 8	703	
				3 10	270			4 5	370		5 2	493		4 8	517				
4 3	2 6	150		3 11	276			4 6	378					4 9	526	6 2	4 3	542	
	2 7	155		4 0	281			4 7	384		5 5	3 8	360		4 10	536		4 4	552
	2 8	161						4 8	391			3 9	368		4 11	546		4 5	561
	2 9	165	4 8	2 8	193			4 9	398			3 10	377		5 0	554		4 6	572
	2 10	171		2 9	199			4 10	402			3 11	385		5 1	564		4 7	582
	2 11	177		2 10	206			4 11	412			4 0	393		5 2	573		4 8	592
	3 0	182		2 11	211			5 0	420			4 1	399		5 3	581		4 9	605
	3 1	186		3 0	217		5 1	3 6	304			4 2	407		5 4	590		4 10	615
	3 2	190		3 1	224			3 7	311			4 3	416					4 11	625
	3 3	196		3 2	230			3 8	318			4 4	424	5 10	4 0	456		5 0	636
	3 4	202		3 3	235			3 9	325			4 5	433		4 1	465		5 1	647
	3 5	207		3 4	242			3 10	332			4 6	441		4 2	475		5 2	656
	3 6	211		3 5	248			3 11	337			4 7	449		4 3	487		5 3	667
	3 7	216		3 6	255			4 0	343			4 8	456		4 4	496		5 4	678
	3 8	221		3 7	260			4 1	354			4 9	465		4 5	504		5 5	689
	3 9	227		3 8	266			4 2	358			4 10	472		4 6	514		5 6	700
	3 10	232		3 9	272			4 3	368			4 11	482		4 7	522		5 7	710
				3 10	279			4 4	375			5 0	490		4 8	532		5 8	720
4 4	2 6	157		3 11	284			4 5	382			5 1	498		4 9	542		5 9	732
	2 7	161		4 0	291			4 6	391		5 6	3 8	371		4 10	550		5 10	742
	2 8	167						4 7	398			3 9	379		4 11	560		5 11	752
	2 9	172	4 9	2 10	214			4 8	403			3 10	389		5 0	570	6 3	4 3	556
	2 10	178		2 11	220			4 9	412			3 11	398		5 1	580		4 4	566
	2 11	183		3 0	227			4 10	419			4 0	406		5 2	588		4 5	578
	3 0	189		3 1	232			4 11	423			4 1	414		5 3	599		4 6	591
	3 1	195		3 2	239			5 0	434			4 2	423		5 4	608		4 7	599
	3 2	199		3 3	245		5 2	3 6	312			4 3	431		5 5	617		4 8	610
	3 3	203		3 4	252			3 7	319			4 4	438		5 6	627		4 9	622
	3 4	209		3 5	258			3 8	326			4 5	448	5 11	4 0	469		4 10	631
	3 5	214		3 6	265			3 9	333			4 6	456		4 1	479		4 11	644
	3 6	220		3 7	270			3 10	342			4 7	465		4 2	489		5 0	655
	3 7	224		3 8	277			3 11	350			4 8	472		4 3	500		5 1	665
	3 8	230		3 9	283			4 0	360			4 9	482		4 4	510		5 2	675
	3 9	235		3 10	290			4 1	365			4 10	490		4 5	518		5 3	686
	3 10	241		4 0	302			4 2	372			4 11	500		4 6	528		5 4	697
4 5	2 8	174		4 1	308			4 3	381			5 0	508		4 7	538		5 5	708
	2 9	179		4 2	315			4 4	388			5 1	517		4 8	547		5 6	720
	2 10	185						4 5	395			5 2	524		4 9	557		5 7	731
	2 11	190	4 10	3 0	234			4 6	403						4 10	570		5 8	741
	3 0	196		3 1	239			4 7	410		5 7	3 8	382		4 11	577		5 9	753
	3 1	202		3 2	246			4 8	417			3 9	391		5 0	587		5 10	763
	3 2	207		3 3	253			4 9	426			3 10	400		5 1	596		5 11	774
	3 3	213		3 4	260			4 10	433			3 11	410		5 2	606	6 4	4 3	571
	3 4	217		3 5	267			4 11	440			4 0	420		5 3	616		4 4	581
	3 5	223		3 6	273			5 0	448			4 1	427		5 4	626		4 5	592
	3 6	228		3 7	279							4 2	435		5 5	635		4 6	605
	3 7	234		3 8	286							4 3	444		5 6	645		4 7	615
	3 8	239		3 9	293		5 3	3 6	323			4 4	452					4 8	626
	3 9	245		3 10	300			3 7	330			4 5	462		6 0	4 3	514	4 9	638
	3 10	251		3 11	307			3 8	339			4 6	470			4 4	524	4 10	647
	3 11	256		4 0	314			3 9	346			4 7	479			4 5	533	4 11	659
	4 0	262		4 1	319			3 10	354			4 8	487			4 6	543	5 0	672
4 6	2 8	181		4 2	326			3 11	361			4 9	497			4 7	550	5 1	682
	2 9	186		4 3	332			4 0	370			4 10	505			4 8	563	5 2	693
	2 10	192		4 4	339			4 1	378			4 11	514			4 9	574	5 3	706
	2 11	197	4 11	3 0	244			4 2	385			5 0	522			4 10	584	5 4	715
	3 0	203		3 1	249			4 3	393			5 1	532			4 11	591	5 5	727
	3 1	209		3 2	256			4 4	400			5 2	540			5 0	603	5 6	739
	3 2	214		3 3	263			4 5	412			5 3	549			5 1	615	5 7	749
								4 6	416										

Girth. Length. Weight.			Girth. Length. Weight.			Girth. Length. Weight.			Girth. Length. Weight.			Girth. Length. Weight.			Girth. Length. Weight.		
ft. in.	ft. in.	pounds.	ft. in.	ft. in.	pounds.	ft. in.	ft. in.	pounds.	ft. in.	ft. in.	pounds.	ft. in.	ft. in.	pounds.	ft. in.	ft. in.	pounds.
6 4	5 8	760	6 8	5 11	879	7 0	6 8	1096	7 5	5 6	1014	7 9	6 1	1225	8 1	6 10	1498
	5 9	773		6 0	892		6 9	1110		5 7	1026		6 2	1242		6 11	1519
	5 10	783		6 1	904					5 8	1044		6 3	1260		7 0	1540
	5 11	792		6 2	916	7 1	5 3	883		5 9	1060		6 4	1275		7 1	1555
6 5	4 3	587		6 3	928		5 4	897		5 10	1075		6 5	1292		7 2	1571
	4 4	598		6 4	941		5 5	911		5 11	1091		6 6	1310		7 3	1590
	4 5	607		6 5	955		5 6	925		6 0	1106		6 7	1326		7 4	1609
	4 6	620		6 6	967		5 7	939		6 1	1121		6 8	1343		7 5	1627
	4 7	633					5 8	953		6 2	1137		6 9	1361		7 6	1646
	4 8	643	6 9	5 0	764		5 9	967		6 3	1152		6 10	1376		7 7	1663
	4 9	655		5 1	777		5 10	981		6 4	1168		6 11	1393		7 8	1680
	4 10	666		5 2	790		5 11	995		6 5	1182		7 0	1410			
	4 11	678		5 3	802		6 0	1009		6 6	1196		7 1	1427	8 2	6 0	1341
	5 0	689		5 4	815		6 1	1023		6 7	1212					6 1	1359
	5 1	700		5 5	827		6 2	1036		6 8	1228	7 10	5 6	1133		6 2	1378
	5 2	710		5 6	840		6 3	1051		6 9	1243		5 7	1149		6 3	1396
	5 3	722		5 7	853		6 4	1065		6 10	1259		5 8	1165		6 4	1415
	5 4	734		5 8	865		6 5	1079		6 11	1275		5 9	1183		6 5	1434
	5 5	745		5 9	878		6 6	1093		7 0	1291		5 10	1200		6 6	1453
	5 6	757		5 10	890		6 7	1107					5 11	1218		6 7	1473
	5 7	769		5 11	903		6 8	1121	7 6	5 6	1037		6 0	1235		6 8	1492
	5 8	778		6 0	917		6 9	1135		5 7	1054		6 1	1252		6 9	1511
	5 9	790		6 1	930		6 10	1149		5 8	1070		6 2	1268		6 10	1527
	5 10	802		6 2	942	7 2	5 3	903		5 9	1085		6 3	1285		6 11	1546
	5 11	813		6 3	955		5 4	916		5 10	1100		6 4	1303		7 0	1565
	6 0	825		6 4	967		5 5	930		5 11	1116		6 5	1320		7 1	1583
6 6	4 3	605		6 5	980		5 6	945		6 0	1133		6 6	1338		7 2	1602
	4 4	615		6 6	993		5 7	960		6 1	1148		6 7	1355		7 3	1620
	4 5	626	6 10	5 0	783		5 8	974		6 2	1163		6 8	1372		7 4	1639
	4 6	638		5 1	795		5 9	988		6 3	1179		6 9	1390		7 5	1658
	4 7	651		5 2	808		5 10	1002		6 4	1194		6 10	1406		7 6	1677
	4 8	661		5 3	822		5 11	1016		6 5	1211		6 11	1424		7 7	1695
	4 9	672		5 4	834		6 0	1032		6 6	1226		7 0	1442		7 8	1714
	4 10	685		5 5	847		6 1	1046		6 7	1242		7 1	1460	8 3	6 0	1372
	4 11	693		5 6	860		6 2	1060		6 8	1257		7 2	1478		6 1	1390
	5 0	700		5 7	871		6 3	1075		6 9	1270					6 2	1408
	5 1	717		5 8	885		6 4	1089		6 10	1289	7 11	5 8	1191		6 3	1428
	5 2	728		5 9	899		6 5	1103		6 11	1306		5 9	1210		6 4	1448
	5 3	741		5 10	913		6 6	1117		7 0	1322		5 10	1226		6 5	1466
	5 4	752		5 11	927		6 7	1120	7 7	5 6	1063		5 11	1245		6 6	1485
	5 5	763		6 0	939		6 8	1147		5 7	1078		6 0	1263		6 7	1504
	5 6	776		6 1	952		6 9	1161		5 8	1093		6 1	1281		6 8	1522
	5 7	787		6 2	965		6 10	1175		5 9	1110		6 2	1298		6 9	1541
	5 8	798		6 3	977					5 10	1126		6 3	1316		6 10	1561
	5 9	811		6 4	990	7 3	5 3	925		5 11	1142		6 4	1333		6 11	1581
	5 10	822		6 5	1004		5 4	939		6 0	1159		6 5	1351		7 0	1600
	5 11	834		6 6	1016		5 5	955		6 1	1175		6 6	1369		7 1	1619
6 7	4 3	655	6 11	5 0	802		5 6	969		6 2	1190		6 7	1386		7 2	1637
	4 4	666		5 1	816		5 7	984		6 3	1207		6 8	1403		7 3	1656
	4 5	678		5 2	829		5 8	998		6 4	1222		6 9	1421		7 4	1676
	4 6	690		5 3	843		5 9	1014		6 5	1239		6 10	1433		7 5	1695
	4 7	703		5 4	855		5 10	1023		6 6	1256		6 11	1455		7 6	1715
	4 8	715		5 5	869		5 11	1043		6 7	1271		7 0	1473		7 7	1733
	4 9	727		5 6	883		6 0	1058		6 8	1287		7 1	1491		7 8	1751
	4 10	739		5 7	896		6 1	1072		6 9	1302		7 2	1509	8 0	6 0	1269
	4 11	750		5 8	909		6 2	1086		6 10	1319					6 1	1308
	5 0	763		5 9	923		6 3	1102		6 11	1336		6 2	1326		6 2	1326
	5 1	774		5 10	937		6 4	1116		7 0	1350		6 3	1344		6 3	1344
	5 2	787		5 11	951		6 5	1130	7 8	5 6	1085		6 4	1361		6 4	1361
	5 3	799		6 0	963		6 6	1145		5 7	1100		6 5	1379		6 5	1379
	5 4	812		6 1	976		6 7	1159		5 8	1119		6 6	1397		6 6	1397
	5 5	823		6 2	988		6 8	1175		5 9	1134		6 7	1415		6 7	1415
	5 6	836		6 3	1002		6 9	1190		5 10	1149		6 8	1434		6 8	1434
	5 7	847		6 4	1016		6 10	1204		5 11	1165		6 9	1450		6 9	1450
	5 8	860		6 5	1030		6 11	1219		6 0	1180		6 10	1469		6 10	1469
	5 9	872		6 6	1043	7 4	5 3	946		6 1	1196		6 11	1487		6 11	1487
	5 10	884		6 7	1057		5 4	962		6 2	1212		7 0	1505		7 0	1505
	5 11	896					5 5	977		6 3	1229		7 1	1522		7 1	1522
	6 0	908	7 0	5 3	862		5 6	991		6 4	1246		7 2	1539		7 2	1539
	6 1	920		5 4	876		5 7	1007		6 5	1263		7 3	1554		7 3	1554
	6 2	932		5 5	890		5 8	1021		6 6	1278		7 4	1575		7 4	1575
	6 3	944		5 6	904		5 9	1037		6 7	1294		7 5	1595		7 5	1595
	6 4	956		5 7	917		5 10	1051		6 8	1310		7 6	1613		7 6	1613
				5 8	931		5 11	1067		6 9	1327		7 7	1630		7 7	1630
6 8	5 0	743		5 9	945		6 0	1082		6 10	1344				8 1	6 0	1316
	5 1	756		5 10	959		6 1	1096		6 11	1361		6 1	1338		6 1	1338
	5 2	767		5 11	973		6 2	1112		7 0	1376		6 2	1356		6 2	1356
	5 3	780		6 0	987		6 3	1127					6 3	1374		6 3	1374
	5 4	792		6 1	1001		6 4	1141	7 9	5 6	1109		6 4	1394		6 4	1394
	5 5	805		6 2	1014		6 5	1156		5 7	1124		6 5	1410		6 5	1410
	5 6	818		6 3	1028		6 6	1172		5 8	1141		6 6	1427		6 6	1427
	5 7	830		6 4	1042		6 7	1187		5 9	1158		6 7	1444		6 7	1444
	5 8	841		6 5	1056		6 8	1201		5 10	1175		6 8	1462		6 8	1462
	5 9	855		6 6	1070		6 9	1217		5 11	1191		6 9	1480		6 9	1480
	5 10	867		6 7	1084					6 0	1210				8 2	6 0	1341

Girth.	Length.	Weight.	Girth.	Length.	Weight.
ft. in.	ft. in.	pounds.	ft. in.	ft. in.	pounds.
8 5	6 9	1604	8 5	7 3	1723
	6 10	1625		7 4	1741
	6 11	1645		7 5	1764
	7 0	1665		7 6	1783
	7 1	1684		7 7	1803
	7 2	1701		7 8	1824

FOR THE NEW ENGLAND FARMER.

Thomas G. Fessenden, Esq.

DEAR SIR—In the last New England Farmer, (No. 3) I observed a communication from Professor Dana, on the subject of the correspondence between Gov. Wolcott and myself, published in the preceding number. That it should meet his approbation is to me highly flattering; but I am constrained to express my regret that he should have given to a part of it, at least, so hasty a perusal as to imbibe erroneous impressions.

The Professor seems to direct his attention chiefly to the *bleaching* process. The great object of inquiry was a *cheap* solvent, that would, without *fixing* the color, "extract the glutinous matter and weaken the woody fibre," and so simple in its application as to be conveniently used by "operative farmers." It was remarked, however, that *bleaching* might follow in a considerable degree, but it was not necessary to combine it with the object in view; as I trust it will appear that among the *desiderata* for the extension of the *linen* manufacture, the *bleaching*, a process formerly very tedious and expensive, is so completely attained as to leave but little room for further improvement. And it should be considered that the bulk, and probably the most profitable, of our linen manufactures for a number of years, or till the raw material is produced in much greater abundance, will require *no bleaching*; for instance, all the different qualities of *sail cloth* and the immense supply of *cotton bagging* for our Southern brethren.

It is gratifying that the Professor is of the opinion that "*Steam* may be employed with decided advantage for separating the glutinous matter from flax;" but my suggestions did not "forbid its application when generated from *alkaline solutions*;" on the contrary, it was stated that steam from such solutions was supposed *not* to effect the decomposition of the *cellular oil*; and I felt justified in this remark, from having observed at the *Paterson manufactory*, that the *yarns*, of which the *sail cloth* is made for the *NAVY*, were submitted to the action of *steam* from an *alkaline ley*; and, in the Essay referred to in the correspondence, it was stated that "the Navy-board expressly forbid *boiling* them in such ley," and that "it was from this precaution their canvass had the pliable, oily feeling, which so much recommended it." The idea of preparing *flax* by *steam* which I suggested in the Essay, first occurred to me, two

years ago, when witnessing the process of *steaming* those yarns.

My suggestion of *simple muriate of lime* was foreign to the purpose of *bleaching*; though *lime*, when combined with *alkali*, is a powerful agent in that process; but unless used with great caution destructive to the material. Indeed it is evident, that the use of *lime* in combination with *any* substances, that may be applied to flax, should be critically graduated; and great circumspection on this point cannot be too strongly inculcated.

I remain very truly yours,

S. W. POMEROY.

Brighton, 25th Sept. 1822.

NEW ENGLAND FARMER.

BOSTON:—SATURDAY, SEPT. 23, 1822.

We have republished, in this day's paper, the *Graziers' Ready Reckoner*, which we copied from a late number of the Baltimore American Farmer. It is not in our power to vouch for its accuracy, although we have no doubt but it is useful when its calculations are applied to the breeds of cattle, &c. for which they were intended. Whether similar admeasurements, and corresponding results would help us yankees in *guessing* the weight of live stock of our common breeds is more than we are able to say. The Table, at any rate, will prove useful if it turns the attention of *Graziers* and *Butchers* to the subject; and may at least furnish hints for the construction of similar tables, adapted to the weight and corresponding dimensions of our common American animals.

We have received a communication on the subject of *CIDER*, which we think well and judiciously written. It shall appear in our next.

WORCESTER CATTLE SHOW.

The Cattle Show, Exhibition of Manufactures, and Ploughing Match, which was holden at Worcester, on the 25th inst. deserves to be spoken of in terms of no ordinary eulogy. The weather was fine, the concourse numerous and respectable, and many of our first citizens, by their presence, and the apparent zeal and animation with which they entered into the spirit of the day, evinced that they were impressed with the importance of those pursuits which this Farmers' and Manufacturers' anniversary was intended to encourage. Every thing conspired to evince that the mental and physical energies of the country were flowing in the right channel, and by the blessing of Heaven could not fail to eventuate in the full tide of national and individual prosperity. The zeal and emulation exhibited by the competitors at the Ploughing Match kept expectation (together with the other spectators) on tiptoe during the trial. The rivals in the Chariot Races of the Olympic Games could scarcely have contended with more energy and earnestness, nor could the *lookers-on* have shown more interest in their contests. The Sacred and Literary exercises of the day, the toasts, which were the *cap sheaves* of the festivities, the Oratorio of Sacred Music, which seemed to solemnize the amusements, and consecrate the business of the anniversary, were highly appropriate and gratifying. The whole proceedings were such as to awaken and excite those faculties which at once exhilarate and exalt human nature, and by being depicted in a great multitude of "happy human faces," afford an exhibition not less pleasing to the man of "good feelings,"

than the finest specimens of art, or the most perfect productions of nature.

As we propose hereafter to give a particular and official account of the proceedings of the day, we close for the present with these general observations.

A late arrival at New York from London, brings English papers to the 6th of August. They contain little interesting matter. The King is about to visit Scotland, and great preparations are making to give him a splendid reception. Scotch songs overflowing with loyalty, and imbued with the genuine quintessence of poetry, will be poured out in profusion. Sir Walter Scott, it is said, is about to levy a contribution on the muses, and decorate his Majesty's temples with garlands picked from the peak of Parnassus.

Yellow Fever at New Orleans.—A letter from New Orleans, to the editors of the Portsmouth Gazette, dated August 23, says, "The yellow fever has commenced its dreadful ravages in this ill-fated city, and as is usual, principally confined to northern constitutions. It will probably continue till the cold weather puts a stop to its career."

An invention has just been brought to perfection, in England, for the cutting, spreading and twisting of the wicks of candles, by which piece of machinery a single person can cut, spread and twist five rods in one minute, by which more than one half of the manual labor in the making of candles is saved.

A premium of a silver cup, of the value of \$12, is offered by the Bourbon Agricultural Society, in Kentucky, for the best sample of *whiskey*, in a quantity not less than one barrel.

We have had frequent occasions to mention the extraordinary growth of Apples the present season; but the following exceeds any we have yet heard of. A gentleman of Marblehead informs us, that he saw an Apple weighed on Tuesday last, which grew in a garden in that town, and the weight of which proved to be *twenty-three ounces*; and three apples (of which the above was one) weighed together three pounds and three quarters.—*Salem Gazette*.

It is said that the springs in the county of Plymouth have never been so low, as at present, within the memory of man.

Rye Coffee.—It is stated that Philadelphia furnishes Boston with about 5000 barrels of rye coffee in a year.

The Duel.—We do not believe a single instance ever occurred, so calculated to check the ridiculous and absurd practice of settling principles of honor by skill in sharp shooting, or questions of character at the muzzle of a pistol, as the controversy between Colonel Cummiog and Mr. McDuffie. In addition to the statements previously furnished, the New York Mercantile Advertiser, on the authority of letters received there from Augusta, says, at the time of the arrest, a *large military force* was on the spot! What perfect *Orlando Furiosos* these combatants must be. Some people could be kept apart by two platoons or such a matter of infantry, but these champions required a *large military force* to effect the purpose.—The following article from the *Morning Post*, we really think too severe; but these champions must expect a few rubs, as an offset for the great anxiety and trepidation they have caused among the public:

RETURN of the killed, wounded and missing in the late wonderful Duel between Mr. McDuffie and Col. Cumming.

Killed—none,
Wounded, in the back—one,
Missing, at roll call—none,
Shook hands—two,
Seconds—safe,

Horses and negro coachmen—alarmed,
The Public—very much amused by the performers, who appear to have paid great attention to stage effect. Further particulars in the bills of the play.—*Balt. Pat.*

From Mrs. Colvin's Weekly Messenger.

THE FOX AND ANT.

BY JOHN B. C. * * * G. Esq.

An Ant would have her picture drawn,
By Fox, the STUART of the lawn;
Whose matchless sketches bold and rare,
Are all as like as they can stare.
This tiny ant in Reynard's hole
Said, 'Though admir'd by every soul,
Still I am meek as cosset-lamb,
And would be painted as I am!
Good, said the Fox, that's my affair;
Pray, Ma'am, be seated in the chair.
She squats. Conceit began to fret,
(The Ant was a complete coquette.)
And roll'd her eyes and toss'd her head,
And bit her lips to make 'em red;
Forc'd many a trait from love to spite,
Killing to look with all its might.
Fox, with the pallet in his paw,
Took snuff, and then began to draw;
Glanc'd o'er her face; found little in it—
And did her likeness in a minute.
Ant rose and look'd—'Ye powers,' says she,
'Is this poor little image me?'
'Me? me not bigger than your thumb?'
'The daub is not like me a crumb.'
'No, by the powers that rule the ball,
'It is at least two thirds too small!'
Fox, who descried her shoals and shelves
Replied, 'Miss Ant, few know themselves;
'Small folks, by great conceit puff'd fat,
'Are not one grain more great for that!'

MEDICINAL.

We are aware that medical prescriptions, conveyed through the medium of a newspaper, carry with them no great force of authority.—It has not unfrequently happened, however, that they have been productive of good. The greatest discoveries in philosophy have been the results of reflection, operating upon casual incidents. Valuable principles have been developed in the healing, as well as in other arts, by fortuitous circumstances; and perhaps the following items, which we have selected from English papers, may have the effect to rescue some one of the human family from the evil it proposes to remedy. Should its application in a single instance be salutary, the labor bestowed will not have been regretted.—*American.*

Croup.—Dr. Reddelin, of Weismar, has communicated to the Royal Society at Gottingen, the following successful treatment of Croup, after the usual remedies had been tried without effect:—The patient was a female aged 19, who, on the third day after being seized with the Croup, was unable to swallow, had begun to rattle in the throat, and seemed approaching rapidly to dissolution. Dr. Reddelin insinuated, by means of a quill, a mixture of Spanish snuff and marrocco into her nostrils; and after repeating this mixture a second time, it excited sneezing and vomiting; this occasioned the discharge of two long membranous cylinders from the trachea, (wind-pipe) upon which the rattling immediately ceased, and the patient was rescued from instantaneous suffocation. One of the tubes, when split open, measured nine French lines in breadth; they were quite white, and bore a strong extension without injury to their fibrous texture.

It is said to be a specific for the rheumatism, to apply a cabbage-leaf to the part affected.—Choose a perfect leaf, cut off the protuberant stalk on the back, and place it on the part with a bandage of flannel on going to bed. It will produce a local perspiration, and in two or three repetitions a cure will be effected.

A writer says, "tobacco exhausts those juices so essentially necessary to further digestion; it creates thirst and nausea; it destroys appetite; the complexion becomes cadaverous; finally, the chewer and smoker becomes a poor miserable *extenuated* atrophic walking skeleton, smoking away his few remaining ideas, and spitting up his lungs, until death releases him from all his sufferings." The truth, we believe, is, that to many constitutions tobacco is hurtful—to others, innocent; and the true course is for those who find it injurious, to abstain from its use. That it is pernicious to young people generally is past a doubt, and therefore its use by them ought to be forbidden or discouraged.

Great Establishment.—There is an extensive Manufacturing Establishment at Dover, N. H. The capital is \$500,000; a great part of the shares, we believe, are owned in this city (Boston.) The proprietors have a Cotton Manufactory, which carries 2500 spindles, employs 36 looms, 120 hands, and at which 10,000 yards of sheeting and shirting are manufactured and bleached per week. During the last season, the company erected a building of 80 by 54 feet, 4 stories, embracing a rolling and slitting mill, nail factory and machine. The basement and second stories are devoted to the rolling and slitting mill—the construction of the rolling mill is on a new principle, having but one water wheel placed at the side of the platform. The third story is used as the nail factory, and from 6 to 700 tons of iron per year, are cut into nails in this factory. The 4th story is occupied as a machine shop, in which 40 hands are employed, in making the various kinds of machinery for a new cotton manufactory, now erecting on the same falls, which is to be 154 by 43 feet, and will carry 4000 spindles, and employ from 150 to 200 hands, and probably produce 20,000 yards of cloth per week.—This, with other improvements going on at Dover, will prove of lasting advantage to the town, "which is destined to become the Manchester of New-Hampshire."—*Gazette.*

Baltimore Manufactories.—The Federal Republican says, there are 13 cotton mills in that vicinity, which drive at least 32,880 spindles—2 woollen mills—1 copper rolling mill, which is the only one of note in the United States—3 extensive rolling-mills, which manufacture annually at least 1500 tons of iron into rods, hoops, holt and sheet iron—besides at least 30 of the best and most improved merchant-mills within the limits and environs of the city, that manufacture about 300,000 barrels of flour annually.

From the New York American.

A method of working pumps, by means of a *capstan*, has lately been invented by P. T. Voorhees, first Lieut. of the U. S. ship Washington. The machinery is simple, not expensive, and so constructed as to admit the common way of

working the pumps with less fatigue than is usual. This is a highly important discovery, and cannot fail to induce every ship owner to avail himself of the plan for the use of his ship. Insurance offices would find it to be their interest, and would do an act of humanity, were they to insist, as one of the conditions to insurance, that this highly improved plan should be adopted by every ship over which they might have any control. It is understood that Lieut. Voorhees intends to present his invention to the different foreign governments through the medium of their Ambassadors at Washington.

Piety communicates a divine lustre to the female mind—wit and beauty, like the flower of the field, may flourish for a season; but let it be remembered, that like the fragrant blossoms that bloom in the air, these gifts are frail and fading. Age will nip the bloom of beauty; sickness and sorrow will stop the current of wit and humor; and in that gloomy time which is appointed for all, piety will support the drooping soul, like a refreshing dew upon the parched earth.

I am an admirer of simplicity; but I never feel a greater impulse to pay homage at its shrine, than when it sheds its soft lustre on the female sex. I am pleased when I behold woman in such lights and shades of soul, temper and disposition, as nature has originally formed her in. Were I to select a fair

"For solid comfort and connubial love," it should be her, who, reared in seclusion, was the genuine child of simplicity—whose spotless mind has never received an unfavorable impression from the follies of a fashionable world.

Sorrow and calamity are the surest test of religious principle; and religious principle rises to moral sublimity when it teaches the suffering individual to breathe its glorious spirit through its own hallowed medium.

Intellectual talents are the noblest gift of the Almighty, but they involve their possessor in high and solemn responsibility. Prostituted genius is the nearest resemblance of the spirit of evil. It looks like Satan clothed in the garb of an angel of light.

The virtues, like the vices, are so fond of one another that they are seldom or ever found separate; and if a virtue or two be sometime found crowded in amongst many vices, they are only like sprigs of geranium set without root in a garden, which, before they have time to take root, are thrown down by the first shower or gust of wind, and wither away directly.

Lost money may be found again; but a lost character is seldom recovered.

Sir Nicholas Bacon, a judge in the time of Queen Elizabeth, was once, while on the bench, importuned by a criminal to spare his life on account of his kindred. "How so?" asked the Judge. "Because my name is Hog and you are Bacon, and hog and bacon are so near alike that they cannot be separated." "Aye," said the Judge, "but you and I cannot be kindred except you be hanged; for hog is not bacon until it is well hanged."—*Bacon's Essays.*

NEW ENGLAND FARMER.

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VOL. I.

BOSTON, SATURDAY, OCTOBER 5, 1822.

No. 10.

HOPS.

We have been frequently requested to give, in the *New England Farmer*, a statement of the most approved method of cultivating Hops. We accordingly copy the following from Messrs. Wells & Lilly's edition of Deane's *Georgical Dictionary*. If any of our readers are in possession of any more improved mode of producing that article, we should be very glad to receive an account of it for publication.

HOP, *Humulus*, a narcotic plant of the reptile kind, the flower of which is an ingredient in beer, ale, &c. As I have not had much experience in hops, I shall give an account of the management of them, chiefly abstracted from the *Complete Farmer*, and abridged.

A rich, deep, mellow, dry soil, rather inclining to sand than clay, is best adapted to the cultivation of hops. A black garden mould is excellent.

The ground should be ploughed very deep, or dug with a spade, reduced to a fine mould by repeated ploughing and harrowing, and laid even.

When the ground is in proper readiness for planting, let a line be stretched on a straight side of a field, with knots or rags in it, as far asunder as you design your hills shall be; and stick in the ground a sharp pointed stick at every knot, as marks for the places where the hills are to be made. Remove the line to such a distance as to make the hills equidistant both ways; and so on through the whole ground.

The distance of the hill should be regulated by the strength of the soil. But in every case they should be far enough asunder to admit the hoe plough at all times. If the soil be dry and shallow, six or seven feet will be a convenient distance: But if it be rich, moist, and apt to bear large hops, it may be right to allow eight or nine feet.

The time to plant hops is when they begin to shoot in the spring. The sets are cuttings from the roots, or branches which grow from the main root. They should be from five to seven inches long, with three or more joints or buds on each, all the old and hollow part being cut off. Make holes twelve or sixteen inches wide, and of a depth proportioned to the nature of the ground. If shallow, with hard clay or gravel under, dig not into it, lest you make a basin to retain water; but raise a small hill of good mould. If there is a good depth of rich mellow mould, dig the hole a foot and a half, or two feet deep; the hops will thrive the better.

When all things are ready for planting, fill up the holes with the mould before thrown out, if it be good; but if the same earth be not rich enough, make use of fine fresh mould, or of a compost provided for the purpose, a peck in each hill, but no dung on any account.

Then with a setting stick make five or six holes, one in the middle perpendicular, and the rest round it sloping, and meeting at the top near the centre. Put in the sets so that they may stand even with the surface, press the mould close to them, and cover them with fine mould two or three inches thick. A stick

should be placed on each side of the hill to secure it.

The ground being thus planted, all that is to be done in the following summer is to keep the hills and alleys clear of weeds by frequent hoeings, to dig the ground in May, and carry off the stones raised by digging; to raise a small hill about the plants, and throw some mould on the roots, and in May or June to twist all the vines and branches together in a loose knot, and lay them thus twisted on the top of the hill.

Early in the following spring, when the weather is fine, open the hills, and cut off the shoots of the first year, within an inch of the stock, together with the younger suckers that have sprung from the sets, and cover the stock with fine earth.

In the third and following years, when you dig your hop ground, let the earth be taken away with a spade or hoe, round about the hills, very near them, that you may more conveniently come at the stock, to cut it. Then in fair weather, if your hops be weak, begin to dress them: But if strong, do it later; for dressing late restrains their too early springing, which hurts the hop.

After dressing in the second year, the next thing is to pole them.—Poles ten or twelve feet long will do then; but in the third year, when they come to their full bearing state, they will require poles of full size: This, if the ground be rich, and the hop vigorous, will be from sixteen to twenty feet; or there will be danger of losing great part of the crop.

The hop will soon run itself out of heart, if it be over poled. Neither can a good crop be expected from over poled ground; because the branches which bear the hops grow very little, till the buds have overreached the poles, which they cannot do when the pole is long. Two small poles are sufficient for a hill in a young ground.

A hop garden, Mr. Young says, will last at most forever, by renewing the hills that fail to the amount of about a score annually; but it is reckoned better to grub up and new plant it every 20 or 25 years.

In forward years hops are ripe at the beginning of September.—When they begin to change colour, or are easily pulled to pieces; when they emit a fragrant smell, and when their seeds begin to look brown and grow hard, you may conclude that they are ripe. Then pick them with all expedition; for a storm of wind will do them great mischief at this time.

When the poles are drawn up in order to be picked, the vines around should be cut asunder at the height of three or four feet from the ground: For cutting them lower, especially while the hops are green, would occasion so great a flow of sap, as would weaken the root.

It has been remarked by one who had much experience, that hops which are late picked bear more plentifully the following year than such as are picked early: For which reason he recommends late picking. But the hops which are picked early look better, and are undoubtedly stronger.

The best way of drying hops is on kilns.

Four pounds of undried hops, will make one pound after they are dried.

Before hops are bagged, they should be laid in a heap, that they may sweat and grow tough: And if they are covered for a while with blankets, they will be the better. The bags are coarse linen cloth. They are commonly about eleven feet long, and near two yards and a half in circumference, and contain about 250 weight of hops. The small bags, called pockets, contain about half as much.

The manner of bagging is thus. Make a round or square hole about 26 or 30 inches over, in the floor of the chamber where the hops are laid in heaps after sweating. Tie with a piece of pack thread, a handful of hops in each lower corner of the bag, to serve as handles for the more easy lifting or removing, the bag; and fasten the mouth of the bag to a frame, or hoop, somewhat larger than the hole, that the hoop may rest on its edges. The upper part thus fixed, the rest of the bag hangs down through the hole, but not so far as to touch the lower floor. Then throw into it a bushel or two of hops, and let a man go into the bag, and tread the hops down till they lie close; then throw in more and tread; and so on till the bag is full. Loose it from the hoop, and sew up the mouth as close as possible, tying hops in the upper, as was done in the lower corners. The harder the hops are pressed, and the closer and thicker the bag is, the longer and better the hops will keep.

A small manuring of hop ground every second year is sufficient.—Dung was formerly more in use than at present, experience having shewn that lime, sea sand, marle, ashes, &c. answer the end better, and last longer. But hog dung prevents mildew from taking hops.

Each pole, according to Dr. Hales, has three vines, which makes six vines to a hill. All the sprouts above this number, should be broken off in the spring.

From the *American Farmer*.

Prince George's County, Sept. 20th, 1822.

DEAR SIR—I do not recollect to have seen in your paper, a cure for the disease to which dogs are subject, commonly called the distemper.

Altho' I am a professed enemy to *curs*, biped and quadruped, yet I confess I feel great respect for some dogs, and take pleasure in relieving them from a malady which let alone, or injudiciously treated, becomes fatal to thousands.

The cure is simple and certain. To a dog eight months old, give 4 grains of Turbeth's mineral, in gruel or any thing else in which it will mix. Keep him from cold water 24 hours, then give 4 grains of crocus metallorum, and turn him out. I have never known this remedy to fail.

A Cucumber was raised in a garden in Portland, by Mr. John Young, which measured twenty inches in circumference, and weighed seven pounds and two ounces.—*Portland Gaz.*

From the Massachusetts Spy of October 2.

CATTLE SHOW, &c.

On Wednesday last, the Worcester County Agricultural Society held their Fourth Anniversary Cattle Show, Ploughing Match, and Exhibition of Manufactures. Again we congratulate the Members of the Society, and the Farmers of the County of Worcester, on the honorable result of their continued exertions. The spirit which has been manifested on former occasions appears to be undiminished, and the effects which it has already produced in every branch of agricultural improvement, surpass the anticipations of the most sanguine. The present Exhibition has not detracted from the reputation of our County; and was highly gratifying to the distinguished agriculturists who visited us upon this occasion.

The Examination of Manufactures took place on the day preceding the Public Exhibition.—They occupied a spacious and convenient room, kindly offered to the use of the Society, by S. Brazier, Esq. We regret to say that the show of Manufactures was far inferior to what it has hitherto been. Though most of the specimens were excellent in quality, they were deplorably deficient in variety and quantity. In many articles there was no competition, and indeed no specimen offered; and of course, the proposed premiums were saved to the funds of the Society! There is no part of the Commonwealth able to make so fine a display of Manufactures as the County of Worcester. There is no other County which contains so many great manufacturing establishments; and yet every other County, in this respect, exceeds us in its public Exhibitions. It is not our present purpose to inquire into the cause of this mortifying circumstance; but whatever it may be, if our manufacturing brethren despise the aid of the Society, and are regardless of the honor of the County, there is but one course to be pursued. The Society must abandon all hopes of conciliating their favor, and must divert into another channel the limited means of encouragement which it is in their power to bestow. In other branches of domestic industry, competitors will be found who are not too proud to receive our premiums. In some articles of domestic manufacture, there was on this occasion a very fine display. The dairies supplied numerous and excellent specimens of Butter and Cheese.

The day of the Exhibition was a pleasant one, and the concourse of people as great as on any former occasion. The arrangements for the accommodation of Stock of all kinds was ample. Eighty-eight pens were erected, and nearly all of them were filled with fine animals. The show of Stock we thought uncommonly good. The young animals particularly were of high promise, and the descendants of the famous bull "*Denton*," appeared in increased numbers, and with the most decided marks of excellence. Beside the animals in the pens, there was a handsome number of working cattle entered for premium; and great eclat was given to the occasion by the exhibition of two long lines or teams of strong and beautiful working oxen; one from Worcester, of *one hundred and twenty* yokes; and another from Sutton, of about *fifty* yokes. The farmers of these towns deserve much credit for adding so much to the interest of the spectacle. Our Sutton friends in

particular will accept our thanks for the pains they must have taken in sending their cattle to Worcester. Altho' their numbers were smaller than those of the other line, yet the exhibition was considered as equally honorable to them, taking into consideration the distance from which they came. We all know that they can increase the number of their team, whenever occasion may require.

By the book of the Assistant Recording Secretary, Mr. Wm. D. Wheeler, it appears that the number of Animals regularly entered (exclusive of the above-mentioned teams) was *two hundred and nineteen*—153 of which were Neat Cattle, and 66 Sheep and Swine. It will be observed that the number of Neat Cattle considerably exceeds that of last year, whilst the number of Sheep and Swine is much smaller.

There was great punctuality in executing the previous arrangements, otherwise it would have been impossible to complete the arduous duties of the day. Every thing was conducted with perfect regularity, and there was no hurry or confusion. Indeed decency and order marked all the proceedings of the day. We mean no invidious comparison when we say that in no section of the country would such a great assemblage of people have demeaned themselves with greater propriety and decorum.

The performances of the day commenced with the *Ploughing Match*—The ground selected was a green sward, which, for more than twelve years, had been improved for mowing. The soil was a mixture of clay and gravelly loam, and owing to the unusual dryness of the season had become very hard and compact. The land had been laid out into lots of an eighth of an acre each. Ten persons drew for lots, and they started together in the match, a few minutes after 9 o'clock. A subsequent sketch of the Committee's report will show in what manner the work was performed.

At 11 o'clock, the Society moved in procession to the South Meeting-House. The services were introduced by a pertinent prayer from the Rev. *Joseph Gaff*. An Address was pronounced by NATHANIEL P. DENNY, Esq. of Leicester, one of the Trustees of the Society. It was an earnest appeal to all descriptions of our fellow-citizens to discard prejudices of every kind, whether sectional, professional or traditional; and to unite, as those having one common interest in promoting the great objects for which Agricultural Societies have been instituted. The Orator gave an ingenious exposition of the mutual dependence of Agriculture and Manufactures, and the importance of affording ample encouragement to the latter, in order fully to develop and call into action the resources of the former. To all his sentiments upon the subject of affording extra encouragement to Manufactures, probably many of his audience did not accede; but we believe all were satisfied that the general tendency of his Address was useful to every class of the community. The performances concluded by an Anthem, sung with taste, spirit, and effect, by several amateurs of Boston and Worcester. After the conclusion of the services, the names of the various Committees were announced; and the procession being formed in the same order in which it entered the house, made a circuit of the pens to view the animals which they enclosed, and was dismissed in the area between the pens. The Committees then

proceeded to discharge their respective duties. At two o'clock, a procession was formed for dinner, which was handsomely provided by Messrs. *Howe & White*, at their Hotel. Hon. *Daniel Waldo*, presided at the table. After dinner the following toasts were announced.

1. Agriculture—The mistress of all arts. Her enviable lot is to find her sisters multiplied, and her charms increased by age.
2. American Manufactures.—Skill and industry have become an honorable and an ample substitute for legislative protection.
3. The Massachusetts Agricultural Society.—The soul which animated "the Heart," and is infusing life into the extremities of the Commonwealth.
4. Our Naval Heroes.—When they plough, we reap a harvest!
5. Presidential Competitors.—As their teams have not been duly entered, and have started without signal, the Judges are not pledged to award premiums.
6. The Chain of Union.—Tight, without galling.
7. The Yoke Matrimonial.—To keep both ends even, let neither side have the advantage.
8. The Spindle.—By one revolution our independence was achieved—by millions it is perpetuated.
9. Cattle Shows—and all other Shows but the Lawyer's "chase in action."
10. Those who work and those who play.—May the former have employment, and the latter means to pay for it.

After the third Toast, the Hon. Mr. WELLES, one of the Trustees of the Massachusetts Agricultural Society, rose and returned his thanks for the handsome manner in which the parent Society had been noticed, congratulated the members of the Worcester County Society upon the honorable result of their exertions, and expressed his hearty wishes for their future prosperity. He then proposed the following sentiment:—

The Worcester Agricultural Society.—May their success be commensurate with their zeal, intelligence and patriotism.

The following Toast was given by the Hon. Mr. LEARD.

The Yeomanry of Massachusetts.—Industrious, intelligent and independent—natives of the soil—a stock of the first class, and not to be improved by any foreign crosses.

At 5 o'clock the Trustees assembled in the Meeting House, and the several Committees made their Reports, of which only a summary sketch can now be given.

The Committee on *Neat Stock* consisted of Hon. Levi Lincoln, of Worcester, Chairman; Mr. Paul Dudley, of Douglas, Mr. James Adams, of Barre, Hon. Jonas Sibley, of Sutton, and Mr. Levi Bartlett, of Rutland. This Committee, as usual, made a very long and interesting Report.

The Committee expressed themselves in terms of admiration at the excellence of most of the Stock exhibited. They remarked with what high satisfaction they had witnessed the improvements taking place in those properties which render Stock valuable. The Chairman again congratulated his fellow citizens upon the introduction of the Durham improved short-horned breed into our country—upon the preference which is now given to this breed by many of our best farmers—and upon the progress it is making, in spite of prejudice, in the public estimation. Many other judicious and well-timed remarks were made by the Committee, which we will not anticipate, because it is proposed to lay the whole of their report before the public in a week or two; and we hope that not a farmer in the County will neglect to read it. After observing upon the diffi-

culty of discrimination where merit was so nearly equal, and regretting that they could not bestow more reward where so much was deserved, the Committee recommended the following premiums:—

To Jason Waters, of Sutton, for the best Bull,	\$15
To Messrs. Ward & Rice, of Worcester, for the next best,	10
To Reuben Newhall, of Spencer, for the best Bull Calf,	6
To John Sherman, of Sutton, for the next best,	4
To Horace Warren, of New Braintree, for the best Milch Cow,	15
To Elisha Matthews, of do. for the next best,	10
To John Ayres, of Oakham, for the next best,	8
To Stephen Williams, of Northboro', for the best Heifer,	6
To Asa Rice, of Worcester, for the next best,	5
To Amos Sheldon, Jr. of Fitchburg, for the best Heifer Calf,	5
To John Davis, of Worcester, for the next best,	4
To Thomas W. Ward, of Shrewsbury, for the best four years old Steers,	10
To Simeon Phelps, of Sutton, for the best 3 years old Steers,	8
To Nathl. Gates, of Worcester, for the next best,	5
To Luther Whiting, of Sutton, for the best 2 years old Steers,	7
To Luke Baker, of Rutland, for the best yearling Steers,	5
To James Black, of Barre, for the next best,	3
To Lewis Barnard, of Worcester, for the best Fat Ox,	15
To Asa Rice, Jr. of Shrewsbury, for the next best,	10

The Committee particularly mentioned the following Animals as worthy of notice, viz:—The Bulls of Mr. Horace Warren, of Grafton, of Mr. Hale, of Royalston, Mr. Leland, of Grafton, Mr. Sheldon, of Fitchburg, and Mr. Miles, of Westminster; the Bull Calf of Doct. Ball, of Northborough; the Cows of Mr. Boylston, of Princeton, and Col. Watson of the same town; the Heifers of Theophilus Wheeler, Esq. of Worcester, Mr. Peters, and Mr. King's, of Rutland; the Heifer Calf of Mr. Elisha Flagg, of Worcester; the Steers of Messrs. A. & J. Chase, of Sutton; those of Mr. Isaac Dodge, Jr. of the same place; those of the Rev. Mr. Daggett, of Mendon, (unfortunately not entered in season for premium;) those of Mr. Cyrus Lovell, of Worcester; those of Mr. Elisha Sumner, of Rutland; of Mr. Cummings, of Sutton; of Mr. Hathaway, of Grafton; of Mr. Heywood, of Millbury; of Maj. Tenny, of Sutton; and those of Mr. Joel Wesson, of Millbury; the Fat Oxen of Col. Wyman, of Shrewsbury; and those of Mr. Benjamin Woodbury, of Sutton. Among the descendants of Denton, besides those above mentioned, the Committee also mentioned in terms of high praise, the Bull Calf of Col. Watson, of Princeton; the Bull and Bull Calf of Lovett Peters, Esq. of Westborough; the Bull Calf of Maj. Newton; the Bull Calves of Maj. Davis; the Bull Calf of Hon. Oliver Fiske, and that of Mr. Benjamin Butman; and the Heifers, Bull and Heifer Calves of Maj. Lincoln.

The Committee on *Working Oxen* consisted of Seth Lee, Esq. of Barre, Chairman; Col. Wm. Foster, of Sturbridge, Joseph Estabrook, Esq. of Royalston, Mr. John Batcheller, of Grafton, and Col. William Eager, of Northborough. The Chairman of this Committee had time only to make a summary report. The performances of all the competitors were well spoken of.—The Committee recommended the following premiums:—

To Luther Whiting, of Sutton, the 1st premium,	\$15
To Seth Wyman, of Shrewsbury, 2d premium,	12

To Jonas L. Sibley, of Sutton, 3d premium, 10
To Nathaniel Gates, of Worcester, 4th premium, 6

The Committee also particularly commended the Working Cattle of Mr. Joseph Dudley, and Mr. Peter Darling, of Sutton.

The Committee on *Merino, Mixed, and Native Sheep*, consisted of Hon. Aaron T. As, of Dudley, Chairman; Capt. Cyrus Gale, of Northborough, and Mr. Willard Rice, of Spencer. The Chairman of this Committee made some pertinent and forcible observations upon the great deficiency which was apparent in this kind of Stock, than which none, under proper management, can be more profitable to the farmer. He recapitulated all the advantages which might be derived from the encouragement of an improved breed of Sheep, and the particular advantages which the County of Worcester enjoys in this respect. And he greatly lamented that with such means as we possess to do ourselves and our County justice, there should be such a meagre exhibition. His Report will hereafter be published in detail, and we hope it will be generally read and as generally profited by. The Committee recommended the following premiums:—

To William Lincoln, of Worcester, for the best Merino Ewes,	\$10
To John Davis, of Worcester, for the second best	5
To Levi Lincoln, of Worcester, for the best Merino Wether,	4
To Ezra Bigelow, of West-Boylston, for the best lot of Mixed Merino Ewes,	5

There was but one Merino and one Native Ram entered. The Merino had before received a first premium, and was not considered as entitled to another. The Native Ram was not judged worthy of a premium.

The Committee on *Swine* consisted of Lovett Peters, Esq. of Westborough, Chairman; Col. Seth Wyman, of Shrewsbury, and Mr. Rufus Porter, of Worcester. They recommended the following premiums:—

To John Gleason, jun. of Worcester, for the best Boar,	\$10
To Asa Rice, of Worcester, for the Best Weaned Pig,	4
To Joel Gates, of Worcester, for the best Breeding Sow,	3

The Committee regretted that the competition in this valuable article of Stock was so limited. They mentioned with approbation a Boar of Maj. Simeon Burt, and one of Mr. Simon Gates—also the Pigs of Theophilus Wheeler, Esq. and of Mr. Joel Gates.

The Committee on the *Ploughing Match* consisted of Hon. Seth Hastings, of Mendon, Chairman; Samuel Read, Esq. of Uxbridge, Moses Thomas, Esq. of Sterling, Samuel Mixter, Esq. of New-Braintree and Charles Mirick, Esq. of Princeton. The Committee congratulated the Society on the continued and increasing interest excited by the Ploughing Match, and remarked how great an object it was to give to our fields a better cultivation than formerly, at a less expense of labour, by improvements in the construction and use of the plough. The Committee reported that ten competitors had performed in their respective lots as follows:—

Lot No. 1. John Park, of Millbury, one yoke of Oxen; himself ploughman, no driver; work performed in 27 minutes 43 seconds—19 furrows—plough made by Ebenezer Learned, of Ward.	
No. 2. Jabez Brigham, of Worcester, one yoke of Oxen; ploughman, Moses Brigham, no driver; work performed in 22 minutes—20 furrows—Dutch plough with a wheel, made by E. Learned.	
No. 3. Jonas L. Sibley, of Sutton, one yoke of Oxen,	

ploughman, Samuel Sibley, driver, Stephen Darling; work performed in 19 minutes, 58 seconds—18 furrows—common plough with a wheel, made by A. Chase, of Sutton.

No. 4. John Sherman, of Sutton, one yoke of Oxen; ploughman, Asa Cummins, driver, John Sherman; work performed in 18 minutes, 20 seconds—18 furrows—common plough with a wheel, made by John Hall, of Sutton.

No. 5. Moses Adams, of Sutton, two yokes of Oxen; ploughman, Owen Brown, driver, Tyler Marble; work performed in 17 minutes—16 furrows—common plough with a wheel, made by A. Chase.

No. 6. Levi Lincoln, of Worcester, two yokes of Oxen; ploughman, Philemon Wright, driver, Artemas Ward, 2d; work performed in 20 minutes—18 furrows—Harrison's patent plough.

No. 7. Silas Dudley, of Sutton, one yoke of Oxen; himself ploughman, driver, Joseph Dudley; work performed in 20 minutes 53 seconds—18 furrows—common plough with a wheel and cutter, made by Jesse Warren, of Dedham.

No. 8. Nathaniel Gates, of Worcester, two yokes of Oxen; ploughman, Levi Gates, driver, Nathaniel Gates; work performed in 24 minutes 53 seconds—18 furrows—Wood's patent plough.

No. 9. Peter Darling, of Sutton, one yoke of Oxen; ploughman, Nathaniel Carroll, driver, Peter Darling; work performed in 30 minutes 2 seconds—19 furrows—common plough with a wheel, made by John Holman, of Ward.

No. 10. Nathaniel Brooks, 2d, of Worcester, one yoke of Oxen; ploughman, Bailey Clements, driver, Nathaniel Brooks, 2d; work performed in 23 minutes; 18 furrows—common plough, made by Mr. Emerson, of Haverhill.

The test of merit was the best work with the least expense of labor. The following premiums were recommended:

To Jonas L. Sibley, the *first premium* of Ten Dollars for the plough; Five Dollars to the ploughman; Three Dollars to the driver.

To John Sherman, the *second premium* of Eight Dollars for the plough; ploughman Four Dollars; driver Two Dollars.

To Silas Dudley, the *third premium* of Six Dollars for the plough; ploughman Three Dollars; driver One Dollar.

To Moses Adams, the *fourth premium* of Four Dollars for the plough; ploughman Two Dollars.

[The remainder of the Report will be given as soon as received.]

Awful calamity.—By a gentleman passing this place from Chenango, we learn the following melancholy circumstance, which he stated to have occurred last week in the town of Otselec, in the above county.

A large number of men were employed in raising a barn; two young men were scuffling, and the neck of one was broken in the affray; in this situation he was carried before his father, who was holding a corner post of one of the *bents*—when, (dreadful to relate,) the father, shocked at the horrid spectacle, left his hold, by which means the timbers fell and killed seven men on the spot.—*People's Friend.*

Squirrels.—These destructive animals are stated to be making great ravages among the corn in Ohio. Myriads of them were found in every direction, and it was feared many of the farmers would lose the whole of their crops. Several hunting parties had been formed, and in many instances thousands of them have been destroyed, but still their numbers did not appear to be in the least diminished. Great quantities of them were killed in fields with clubs and stones, and they were literally thronging the streets and house tops of the villages.

FOR THE NEW ENGLAND FARMER.

CIDER.

MR. EDITOR,

Cider is our natural beverage. That it is capable of surpassing the wines of other countries, is a fact frequently well attested at the tables of affluence. To facilitate its more extensive experience is the purpose of this communication.

Agriculture, of which the making of Cider is a part, is the first of sciences. Its pre-eminence entitles it to the distinction of the Divine science. But much is left to the reason as well as the labor of man to exalt it to perfection; and in this economy of Providence, who can be insensible to its benignity and condescension in making us joint laborers in the accomplishment of our enjoyments? I am persuaded that you will not think this seriousness as out of place, since, in connexion with the immediate advantage, it must have been the basis of institutions for the encouragement of agricultural pursuits. In a pecuniary view, the subject is within the demonstration of arithmetic—in years of usual abundance, it may be computed, that a million of barrels of cider are made in Massachusetts, worth, in such years, a dollar each, made in the common manner; any mode of making which, without material multiplication of expense, shall enhance this price, will add the additional value to the stock of profit; and it is not extravagant to say, that even in years of the greatest plenty, like the present, it may be so improved in quality as to be advanced to ten times its ordinary price. Nor is it the epicure alone who would willingly pay for the luxurious draught—the salubrity of a pure and palatable liquor would force parsimony itself into the economy of its purchase. Our autumnal complaints derive, in a great measure, their existence and aliment from the use of viscous and vapid juices. The proverb, that it is better to pay the butcher than the doctor, is much exalted in its application to the present subject—it is better to comply with the terms of nature, than to endure the penalties of their transgression. The apple tree, like the vine, is dependant on man;—through his delinquency, the yieldings of both degenerate into vinegar, but on the performance of his duty, they are exalted into wine.

A finished speculation on the making of Cider, should begin with the songs of the Mantuan bard, on

“The kinds of stock, and what those kinds will bear.”

And on the methods and progress of cultivation, from the “wild disorder” of the nursery to

“The stately tree, which in autumn bends
With blushing treasures.”

For,

“Wouldst thou thy vats with generous wine should
froth?”

Respect thy orchards;—think not that the trees
Spontaneous will produce a wholesome draught.
The plant which shoots from seed, a sullen tree,
At leisure grows for late posterity,
The generous flavor lost.”

But as these pleasing and interesting investigations are better adapted to seed-time than harvest, I will pass on to the business of the season—the making and preserving Cider. A clean, convenient and covered mill, is the first pre-requisite, for without such a mill, all other attentions may be frustrated. The apples should be reduced to a fine pulp. The color of the

liquor and its smoothness are both improved by laying a few hours in the trough after grinding. Lay up the pomace on the press in clean straw, without using a drop of water in any part of the process. Three or four times as much water is often used in making less than a hog-head of cider, than would be required to ruin a pipe of proof spirit. Every mean should be adopted to retain the spirituous property of the liquor—it is its life. If a cider is wanted,

“Some strong, to cheer

The wintry revels of the laboring hind,
And tasteful some, to cool the summer hours,”

the cheese may be reground, with some assistance from the well.

“Water will imbibe

The small remains of spirit, and acquire
A vinous flavor.”

Press the cheese gently at first, and advance slowly to the utmost power of the screw.—Art now commences its operations against the “floating lee”—and in no stage of the business can they be more effectually interposed—in proportion to the clarification of the stum the tendency to an ensuing fermentation is moderated, and its dangerous excess arrested.

In turning up, as it is called, out of the tub, the grossest of the pomaceous mass is usually detained by a strainer of straw, coarser than “the goat’s shaggy beard.” Instead of such a strainer, prepare a funnel with moveable rims, in the form of a sieve—over the bottom rim, stretch a covering of fine flannel—over the second, a covering of baize, and the uppermost overspread with drugget, with the nappy side of each pendant. These strainers will arrest on their way to the vessel, all the gross and most of the subtle impurities which tend to the agitation and vitiation of the liquor. Should the strainers choke they can be easily relieved.

We now advance to the preservation of the Cider, which is the principal difficulty; and after all the directions which can be given much must be supplied by discreet observation. The vinous, the acetous, and the putrefactive, are the three fermentations to which the liquor is inclined—they are, indeed, but one progressive operation, with intermediate pauses. The first is an effort to free itself from a farther association with the fruit, and to excite its own spirit, and is closed with a calmness which marks an intermission of the endeavor—an advance to the second, which converts into vinegar, is restrained only by the due ascendancy and retention in the body of the liquor of the spirituous quality excited and quickened by the first—the last is produced by an irreclaimable foulness. The intermission between the two first is short, and has been considered the critical moment for the successful interposition of art, and racking, fumigation, salt-petre and roach-alum, have been specifics relied upon; but more is depending on the internal condition of the liquor, than on these prescriptions, or on any other consideration. Ciders of a good stamina, purified and protected from the internal and external occasions of its injury, by an attention which ought to be as common as washing down a hog before cutting it up, will never depreciate into sourness; nor will any application reclaim that which sunk under the pressure of its inherent impurities, or lost its virtues by the inattention of its keeper. In respect to racking, however, if it be ineffectual for the

renovation of the liquor, it is seldom attended with disadvantage, and is sometimes the best expedient for its purification.

The quality of the juice of an apple in its natural state, is the prime inquiry to guide all our decisions on the flavor, the taste, the color, and the durability of cider at maturity. Generally, the quality of the juice may be inferred from the outward appearance of the apple, as it departs from the spiritless white into the golden yellow and the gorgeous carnation. Hence,

“Let every tree, in every garden, own
The red-streak as supreme.”

“The pippin, burnish’d o’er with gold,” is but a grade below. But general rules have their exceptions, and on the present subject a surer criterion than outward show may be derived from internal examination—any apple contains a rich fluid, suitable to make a sound, palatable and exhilarating cider, which, on breaking, emits an active fragrant flavor—is not over abundantly juicy, and has a glutinous consistency. That the crab will make the best cider, is one of those crude conceits, that every thing is enveloped in mystery, and that we can in no other way escape the foolery which nature is playing with us, than to forsake our senses. It is all important to the full perfection of the fruit, that after having been gathered (which should be done when ripe, in dry weather, with no external injury, and before frosts shall have corrupted it,) that it be spread on covered floors to mellow, and to impart to the air an useless portion of its aqueous parts.—Rains and dews hurt ripe apples even while on the trees, but they injure them much more in heaps, or spread in contact with any substance and with each other. While in either of these situations, humidity, according to its degree and continuance, retards or stays the process of maturation, institutes that of decomposition, and impairs the spirituous quality upon which the preservation of the cider wholly depends. It should be regarded, too, as almost equally indispensable to the good quality of the liquor, that the fruit should be separated before grinding, from unripe and unsound apples, and from all filth. The juice of an unripe apple is even more pernicious than that of a defective one.

The place in which the cider shall now be set to subside is interesting to its welfare. In a cellar of uniform temperature through the year, it may be left undisturbed to settle and refine on its own lees. The unstoppage of cellar windows in the spring, admits an active agent to the acetous fermentation, against which, drawing off may be a safe guard. If placed in an open exposure below the freezing point,

“The hoary frosts, and northern blasts, take care
The muddy beverage to serene, and drive
Precipitant, the baser rosy lees.”

In this case, racking before a removal into the cellar, (for it ought not to freeze) and again in March or April, may be necessary for the exclusion of the offending matter. The difference in the two modes of treatment already supposed is, that in the first, nature is left to her own unmolested operation, through which her intentions of giving to man a delectable draught, will (if they have not been thwarted by his own remissness) be effectually accomplished:—in the other, she is hastened on in her designs, and the precipitation of the performance requires, that certain of its stages should be seized to thrust

out an enemy who is only on rest to recommence commotion.

As to refining cider with matter, it may be given as a rule, that if while on the lees, or when drawn off, the liquor is tranquil, pleasant, piercing, and yet free from asperity, it may be left to itself; or, as is more fit for turbulent, acrimonious and insipid bodies, a little tasteless mucilaginous matter of any sort, as isinglass, calves feet jelly, the whites of eggs, or dissolved glue, may be infused to accelerate the precipitation of the particles suspended in the liquor.

The addition of spirit to the expressed juice is a practice condemned by *Pomona's Bard*—

"With their native strength,
Thy wine's sufficient."

A sensible observer, too, of our own, has expressed the same censure. But the subject has its qualifications. The treatment which is sometimes necessary to give a saving soundness to wine, decides against these opinions. Brandy is re-mixed with wine to give it solidity; and grapes of the greatest saccharine richness, affording a juice of nearly the consistency of honey, and easily convertible into spirit, are used to exalt inferior clusters into wine of a high quality.* In truth, it is on this point that intelligent observation must direct. Seasons of luxuriant vegetation produce a more aqueous apple than seasons of sterility. The effect of these different seasons on the quality of cider cannot have escaped notice. In the dry summers of 1805 & 6, a spiritous ascendancy in the fruit generally triumphed, in cider, over mismanagement in its making—on the contrary, in seasons of great abundance, and when the fruit is distended to a great size by the watery element, the spirit of cider is reduced to so precarious a standard, that the skilful and vigilant only may boast of its possession in power and purity. In these facts, which a moment's reflection must confirm, we have the instruction we need—if the "native strength" of the juice is sufficient, an alliance should be rejected—if insufficient, an auxiliary may be received, and as the fittest is that nearest in affinity, Cider Brandy is the most suitable assistant.

From these remarks, they result as general rules in the making of Cider, that apples should be ripe when gathered—that they should be housed to mellow—that they should be separated, before grinding, from the rotten and unripe, and from all uncleanness—that they should be mashed fine in a covered mill, and lay in must before laying up, a longer or shorter time according to the temperature of the weather, avoiding, while in that state, the least appearance of fermentation, which then almost immediately produces acidity—that the juice be purified of pulp and impurities, by passing several

* Other, and less notorious secrets in the trade of wine, give the same evidence. Currants, in the proportion of ten gallons to a barrel, will bring on a fermentation in cider which terminates in a neat and pleasant wine. It is the predominant spirit of the currants which effects the severe transformation.

A Senator in Congress, profoundly instructed in the arcana of commerce, asserted in a speech, that a composition passing any where for Madeira wine, may be formed of ten gallons of that article pure, with ten gallons of Malaga wine, thirty of Sherry, and the same quantity of Cider. An analysis of the component parts will shew, that the brandy in the sherry wine is the preservation of the cider in its assimilation to the first named ingredient.

filtrations, and be undiluted by a drop of water—that it be placed in cellars, or in colder situations, and left to its own native vigor, or aided by a friendly association, according to circumstances—that it be left "to feed awhile on its own fatness," or be drawn off once or oftener, as good judgment shall guide. With these precautions, a cider incomparably better than is made with the usual inattention, may be obtained, and its consumption enjoyed.

So far I have treated the subject with a view to general use, and in this view, a leading principle may be given in a word, alike important to the connoisseur and the unlettered tillager—it is, that nature cannot be assisted in any other way than according to her own laws.

There are some distinctions remaining, which are no other than obvious refinements of the same principle.

The exact maturity of the fruit, is the first object of attention in leaving general rules and advancing to a cider than

"Wine more priz'd, or laudable of taste."

The point of perfection in the maturity of fruit can scarcely be said to be stationary for a day; a declension from that point is as detrimental as a deficiency in its attainment; the juice loses its activity, and

"From sprightly, 'twill to sharp or vapid change."

Some apples do not mature until late in winter—others, not until the ensuing spring. Of these, a cider might be made exquisitely fine. Laid in chambers through autumn, and in dry places in the cellar through the winter, exposed to the action of the air, they become enriched by the evaporation of their watery parts—but at neither of these periods is there so friendly a concurrence of the atmosphere for the making of cider as in the last month of autumn.

Assorting the apples, (for I have yet supposed them used promiscuously) is the second particular in the progress to perfection. Phillips observes, that

"Some ciders have by art or age unlearn'd
Their genuine relish, and of sundry wines
Assum'd the flavor."

It is not possible that a commixture of various sorts could give one distinct perception to the palate. So invariably does nature preserve each kind by itself, that no two sorts can be drawn into union on the same stock. The disagreement in the juices of fruit is more or less inveterate when mixed, as they depart from sweet to sour. The mixture of an extremely sharp acid with a luscious sweet, produces an activity of opposition approaching to effervescence, nor does it cease but with the complete subjection of the mass to the acrimonious adversary. These facts suggest the propriety and necessity of keeping each kind of fruit in its own distinctness. The conclusion I should consider as securely propped in its own reasonableness, had it never been intimated by nature nor tested by experience, *that apples of the same kind*, can make the most perfect cider. In this persuasion I can anticipate the time when cider will be designated by the name of its own apple, and the nomenclature of the orchard be as familiar in our markets as any distinctions in use. The most perfect cider, then, can alone be made by an attention to these additions to the general rules.

Of bottling, the advantages are so well understood, that I have no occasion to say any thing in their recommendation; but I should not conduct the cider-maker to the most finished point, were I to omit the observation, that a perfect fineness of his liquor, and an ascendancy in it of a spirit which shall repress its impatience in a close confinement, are as indispensably necessary to the preservation of his bottles as to the perfection of his drink.

Cider is to rise to more than an equality of fame with the most celebrated drinks of other climes, and the competition which will ensue in the market will give celebrity to the section of our country which shall be most successful in its manufacture. Already has this preference of place appeared, and our Herefordshires and Devonshires are in Rhode Island and N. Jersey. But it is *comparative* more than *intrinsic* excellence which may be claimed for the ciders of the Narraganset and of Newark. If the banks of the Connecticut, and the rich vales and propitious southern declivities of Massachusetts shall not bear away the palm, the fault will not be in our soil but in our sons.

"Delightful beverage! to the utmost bounds of this
Wide universe, Columbian Cider borne,
Shall please all tastes, and triumph o'er the vine."

POMONA.

FOR THE NEW ENGLAND FARMER.

The answer of "PLYMOTHEUS" in the Old Colony Memorial, to some remarks made by me on the deficiency in the description of the worm, whose ravages have been so fatal, this season, in some parts of the county of Plymouth, is highly satisfactory. It is by such clear, and distinct statements, alone, that any correct knowledge can be obtained. Loose and general remarks are of little value. It is not, to be sure, certain that we can cure these natural evils by ascertaining accurately their causes, but it is absolutely *certain*, that we *cannot* cure them *without* such information.

When Mr. Peck, (the first and ablest of our naturalists, at the period, when he first became known, and inferior to none even at this day,) gave a scientific history of the Canker worm, he afforded us the opportunity of checking its ravages, if we had followed up his suggestions. Agriculture was then in its infancy, but if at the present day, that scourge should reappear and threaten to lay waste our orchards, I am fully convinced, that the accurate and perfect account given by him of the habits of that insect, will enable us to destroy it, or to diminish exceedingly its destructive powers. The same remark may be made as to the Slug worm which affects the pear and cherry trees—many hundreds of which it finally destroyed. The knowledge with which Mr. Peck has furnished us, of its first appearance, its duration, its second appearance, the depth to which the chrysalis descends, will enable all of us to provide a remedy against its ravages. I have done it most effectually, and I have no fears of its future mischievous effects. At present our country is nearly free from them, and of course any remarks about their extermination would be read without interest.

As to the insect, still more fatal, which attacks the grass and corn, and of which "Plymotheus" has given a very satisfactory account,

as far as it was then in his power to do, it seems to me that something more is desirable—something like the accurate care and attention paid by Professor Peck to the insects above referred to. It is impossible to detect the character of insects in the worm, or as naturalists call it, the larva state. It is only in the perfect state they can be fully ascertained, viz: as applied to this insect, whether this worm is a new genus, or species, or one already known. To this end, it is necessary, that some of them should be taken, and kept in earth, till they shall pass into the chrysalis, and from that into the perfect state, which probably, and indeed certainly, is that of a moth or butterfly. This was the course Professor Peck pursued. We shall then know at what time, they rise, as butterflies, or moths—when they deposit their eggs—when the larva or worm is hatched, and how long it continues its ravages. To what depth the larva descends, in order to undergo its change. It is indeed very alarming, if it descends three or four feet, as stated by Plymouth—but we must doubt this fact, until we know, that the identity of the worm on the surface, and that found in digging post holes, has been ascertained. Great credit is due to Plymouth for what he has done; but we view it only as a pledge, that for the public good, he will do more, which we feel convinced he is very competent, and very ready to do. There is little doubt from his description of the effects of this insect, and of the mode of doing injury, that it is the same insect, which appeared in Worcester county, and the western parts of this state, three years since, and partially on some estates, in Roxbury. The singular manner, in which the grass sward was undermined, so as to detach it from the soil, and to enable you to roll it up, seems to identify it, with the insect so destructive, and alarming to us, at the period referred to. If it could be conceived that such an insect should be permitted to prevail over the country generally, it might produce a famine, though we apprehend, that there is little hazard of such an event—but it is very important, that we should trace its history with care, and we shall doubtless be able to find means of destroying it. We should always remember, as farmers, that this fertile earth is given to us on the condition of our perpetual and never ceasing care to preserve its fertility, and that all the evils we encounter, dry seasons, devouring insects, and blights, are only intended to sharpen our intellectual faculties, increase our zeal and industry in the effort to surmount them, and thus in the end to render the earth more prolific, than it would have been if no such stimulus had existed.

A FARMER.

Roxbury, Sept. 25.

Extract from Pliny's Natural History, Book xviii.
[Translated for the New England Farmer.]

Caius Furius Cresinus, a freed man, was hated, and suspected of sorcery, by his neighbors, because he raised more from his small farm than they acquired from their large possessions. A day was appointed for his trial, by Spurius Albinus. Fearing condemnation, before the opinions of the people were asked, he brought into the forum his farming implements, and his healthy family, well taken care of and neatly dressed, (as Pliny relates) tools excellently made, epades and ploughshares, and oxen in good con-

dition. "These, O! Romans, said he, are my enchantments. My watchfulness, diligence and labor, I cannot display before you." He was acquitted by an unanimous vote. Truly it is labor, not expense, that makes a plentiful harvest; and it is an ancient adage, that the best manure is the eye of the master.

From the American Farmer.

THE ROLLER—Its use and Importance.

MR. SKINNER—Looking accidentally into the Encyclopedia Britannica, at the article Agriculture, I found the annexed passage, which you may think deserves to be inserted in your paper, as I do myself, because we suffer in this part of the country, from frequent droughts, and the relief alluded to in this article is not generally known, though certainly no recent invention or discovery.

Your obedient servant,

THOMAS W. GRIFFITH.

The Roller is an instrument of capital use in husbandry, though scarcely known in ordinary practice. "In the first place, rolling renders a loose soil more compact and solid; which encourages the growth of plants, by making the earth clap close to every part of every root. Nor need we be afraid of rendering the soil too compact; for no roller that can be drawn by two or four horses will have that effect. In the next place, rolling keeps in the moisture, and hinders drought to penetrate. This effect is of great moment. In a dry season it may make the difference of a good crop or no crop, especially where the soil is light."

☞ Allow me to take this opportunity to recommend to all road makers, the use of an instrument of the kind alluded to, that is, a roller, to press down the materials employed in making roads, before the same is travelled—a practice which was successfully adopted, on my suggestion, by the President and Managers of the Turnpike from Baltimore, towards York, in Penn. some years ago.

T. W. G.

From the Cooperstown, (N. Y.) Journal.

Washington's opinion of Agricultural Societies.

I like occasionally to converse with the mighty dead; the results of their investigations, are so many heacons to guide and direct those who come after them. Washington was indeed the father of this country, and he has left many testimonies of his wisdom and devotion to its best interests. At this day, there can be found no man who has the temerity to impugn the motives by which he was actuated, or doubts the policy of the measures which he urged upon the consideration of the National Legislature. In a speech at the opening of Congress, in December, 1796, I find he recommended Agriculture as one of the most proper objects of public patronage. It will be seen by the following extract from that paper, that Societies for the encouragement of the parent art, were considered of primary importance, and especially deserving the fostering support of the National Government.

"It will not be doubted, that with reference either to individual or national welfare, Agriculture is of primary importance. In proportion as nations advance in population and other circumstances of maturity, this truth becomes more apparent, and renders the cultivation of

the soil more and more an object of public patronage. Institutions for promoting it, grow up, supported by the public purse: And to what objects can it be dedicated with greater propriety? Among the means which have been employed to this end, none have been attended with greater success than the establishment of Boards, composed of proper characters, charged with collecting and diffusing information, and enabled by premiums and small pecuniary aids, to encourage and assist a spirit of discovery and improvement. This species of establishment contributes doubly to the increase of improvement, by stimulating to enterprise and improvement, and by drawing to a common centre the results, every where, of individual skill and observation, and spreading them over the nation. Experience, accordingly has shown, that they are very cheap instruments of immense national benefit."

From the New-Hampshire Patriot.

The corn is at this time ripe in the fields just fit for the harvest; and New-Hampshire never exhibited finer and heavier fields—it is believed all was out of the way of "Jack Frost" when he commenced his attacks. Potatoes, turnips and almost every kind of vegetable, have been attended by a growth, whose luxuriance was scarcely if ever exceeded. But the apple trees—we scarcely know how to describe their appearance:—it would seem as if the whole growth of some trees could be intended to produce only one year's crop like the present; there appears to be, at least, a crop of three ordinary seasons in one. Farmers, in laying in their store of cider, ought to calculate for not less than two years. And not only there are more in number, but the size of the apple is increased. To the south, larger fruit of most kinds is produced than to the north: this may be seen in the orchards of Massachusetts contrasted with those of New-Hampshire. The largest apple we have had any account of the present year was one at Marblehead, which weighed about 23 ounces. In the orchard of Maj. Stark at Dunbarton last Thursday one of the editors picked up four apples lying side by side as they fell from the tree, which weighed more than three pounds; and Mr. Gale of this town shewed another weighing a little over seventeen ounces.

POTATOES were discovered in Virginia, by Sir Walter Raleigh who imported them into England previously to 1590. In a manuscript account of the household expenses of Queen Anne, wife of James I. who died 1618, the price of potatoes is given at one shilling a pound.—They now sell fourteen pounds for sixpence. They were not introduced into Ireland till 1610, nor into Scotland until 1728, except in gardens. How rapid and extensive has been the growth and consumption of this root in the course of one century.

Camp Meeting.—A camp meeting of the Methodists commenced about five miles from Plattsburgh, N. Y. on the 5th and closed on the 9th ult. About 5000 were present. During its continuance, the whole country was in motion, and every species of land and water transportation was in requisition.—The society numbers more than 100 new converts at this meeting.

N. E. FARMER.

BOSTON.—SATURDAY, OCT. 5, 1832.

It is hoped that the valuable original communications, published in this day's paper, will atone for the want of original matter under the editorial head. We had articles prepared, which were omitted to give room for the official account of the proceedings at the Worcester Cattle Show.

CATTLE SHOW AT CONCORD.

The *Middlesex Society of Husbandmen and Manufacturers*, held their Anniversary at Concord, on the 3d inst. It was attended by a large and respectable assemblage of the substantial yeomanry of Massachusetts, and many characters of the first respectability honored themselves as well as the occasion, by being present, and taking an active part in the business and amusements of the day. We hope to receive an official account of the proceedings at this Exhibition, for our next paper.

Hillsborough, N. H. Cattle Show.—An Agricultural Fair and Show was held at Amherst, on the 24th and 25th of September, which is spoken of in high terms. The *New Hampshire Patriot* says, "Without disparagement to any other exhibition, it may in truth be said that the patriotic County of Hillsborough has this year, not only out-done all her sister Counties, but excelled herself on any former occasion. This has resulted from the extended and liberal principles on which the Society has been managed, and from the prompt attention of its individual officers and committees to their respective duties—in particular, from the unwearied labor and perseverance of its Secretary, EDMUND PARKER, Esq. to whom the Society owes much, and has acknowledged its obligations."

"The cattle were remarkably fine, especially the young bulls, steers and heifers. Gentlemen from Massachusetts who had frequently attended the great exhibitions at Brighton, freely admitted they had never seen any cattle there superior to those which were reared on the high grounds of the county of Hillsboro'. There was not so great a variety of the household manufactures as might have been anticipated; but better samples have not probably been exhibited. The butter and cheese were excellent—the woollen cloths would vie with superfine imported—the plain linens and diapers, the grass and straw bonnets, the carpets and flannels did great credit to the fair hands which wrought them. In short, there was scarcely an article exhibited which failed of discovering the improved taste and genius of the people of this county."

There were nine persons competitors in the Ploughing Match, and each ploughed the lot assigned him, of one eighth of an acre, in the following manner—Benj. Parker in 13 min. 5 sec.—John Johnson in 13 min. 8 sec.—Isaac Burns in 14 min. 45 sec.—Jonathan T. Wheeler in 15 min. 30 sec.—Levi Jones in 15 min. 25 sec.—Daniel Fuller in 16 min. 25 sec.—C. H. Atherton, one yoke, in 17 min. the other, in 20 min. without a driver—Timothy Danforth in 17 min. 30 sec.

At half past 12 o'clock, at the Meeting House, after prayers by the Rev. Mr. Lord, an ingenious and pertinent Address was delivered by Moses Eastman, Esq. of Salisbury. The awards of the several committees were then declared and the premiums paid.

After the premiums were declared and paid, the Rev. Humphrey Moore, of Milford, Chairman of the Viewing Committee, read a report which he had prepared. It gave a concise description of the Farms and Crops viewed, and the management and good husband-

ry of the owners. The Amherst Cabinet declares that "it was replete with information and wit, and filled the audience with delight and admiration." The same paper says that "the expediency of having the Show in the pleasant month of September, instead of October, and of having two days instead of one, has been decidedly manifested. A large number of new members has been added to the Society, and we have heard of but two who even thought of taking a dismission. As good a Show as we have now had can always be had for \$400, and we hope four hundred good farmers can be found in the county, wishing to contribute yearly the sum of one dollar each, thereby adding ten fold to the respectability of their own class and occupations."

FOREIGN.

DEATH OF LORD LONDONDERRY.

The packet Ship *Amity*, Maxwell, has arrived at New York, with London papers to the 14th of August. They do not appear to contain any thing of importance, if we except the death of the Marquis of Londonderry, who committed suicide by cutting his throat on the 12th of August, at North Cray, County of Kent. The *London Courier* of the 14th contains the Coroner's Inquest and Verdict, from which it appears that he was in a fit of insanity when he committed the act, which was produced by extreme mental and bodily fatigue during the late session of Parliament.

On the death of Lord Castlereagh, the editor of the *Liverpool Mercury* observes, "The sudden, unexpected and self-inflicted death of this nobleman absorbs the public attention to the exclusion of almost every other topic, not excepting the Royal visit to Scotland—nor do we wonder at the interest excited by the demise of an individual, who was the very soul of the present administration; and whose memory is so inseparably associated with the crooked policy pursued by the British Cabinet for the last quarter of a century, that it will be 'damned to everlasting fame.'"

His death was announced in London about half past one on the 12th, and produced great confusion and agitation at the different government offices. It had the effect of lowering the funds a half per cent.

The verdict of the Coroner's Jury was, "That on Monday, Aug. 12, and for some time previously, the most noble Lord, Marquis of Londonderry, under a grievous disorder did labor and languish, and become in consequence delirious and of insane mind: and that whilst in that state, with a knife of iron or steel, he did inflict on himself on the left side of his neck, and of the carotid artery, a wound of one inch in length and a half an inch in depth, of which he instantly died; and that no other person except himself was the cause of his death." To this verdict, all the jurors signed their names.

Eight days later.—By an arrival here on the 3d inst. London papers have been received as late as the 22d of August. The Greeks continue a successful opposition to the Turks, and have threatened measures of retaliation for the cruelties committed at Scio, which it is thought will operate as a restraint on the barbarity of the ferocious Ottomans.

In Spain the waves of political commotion appear to be fast subsiding. Accounts to the 14th of August have been received in London, which state that the new ministry was firmly established, and that they gave such indications of talents, energy, and liberality as led to sanguine hopes that order will be restored, and the country tranquilized. At Cadiz every thing was quiet, and the Constitutionalists completely victorious.

A Congress of Sovereigns was to hold a session at Verona in August, and hopes were entertained that measures would be adopted by those potentates for the benefit of Greece.

The Marquis of Londonderry was buried with great pomp and magnificence in Westminster Abbey. His successor in office will not be appointed till after the return of the King from Scotland.

The reception of the King at Edinburgh, was every way worthy the Scottish character, and gave infinite satisfaction to his majesty.

DOMESTIC.

Mr. Stimson, of Galloway, N. Y. has received premiums from the Agricultural Society of Saratoga county, for having raised 62 bushels of Barley on an acre—four and an half tons of Timothy Hay, per acre, on eight acres—104 bushels of Corn on an acre—and also the largest crop of Potatoes in the county.

The crops of Rice in the vicinity of Savannah are uncommonly abundant and of good quality. About one half of the crop was supposed to have been harvested previous to the 14th Sept.

A person by the name of Richard David, residing in Indiana, was lately bit by a rattle-snake in so fatal a manner, as to cause his immediate death.

Last week, (says the *Gazette*,) on the complaint of the Police Officer, one of our butchers was convicted, before the Police Court, of offering for sale, at the Boylston Market, raised and stuffed meat, contrary to a city ordinance passed on the 22d July last, and fined five dollars and costs. This being the first conviction under the law, the Court sentenced the offender in the smallest penalty, but intimated a determination to increase the fine on future convictions.

BRIGHTON SHOW AND FAIR.

The Members of the Massachusetts Society for Promoting Agriculture, will please bear in mind, that their attendance is expected at their Hall, in Brighton, on *Wednesday*, the 9th of October, at 9 o'clock, A. M. as business is to be transacted—the admission of new members, &c.

All those Gentlemen who are appointed on Committees, will please be punctual in their attendance, at 9, A. M. of the days on which their particular duty falls, as the Trustees intend to adhere strictly to their Rules and Regulations.

Those Ladies who wish to view the Manufactures in the Hall, will please to observe, that they must ascend to it by the steps at the South End, outside of the building, and that the same will be devoted exclusively to them on the 9th, from 9, A. M. to 12, A. M. Some of the Trustees will attend them, and no other Gentlemen will be admitted during those hours, except the owners of the goods, who are expected to exhibit and attend to them.

After 12 o'clock of the 9th, the Hall of Manufactures may be visited by Gentlemen.

The Galleries of the Meeting-House will be reserved for Ladies, till the procession enters, at 1 o'clock. The doors will be open for them exclusively, at 11 o'clock.

Any Gentlemen having fine Animals that are not entitled to be offered for premium, or that have previously received them, are requested to exhibit them, and Pens will be provided.

A Dinner will be provided at Dudley's Hall; a few tickets for which, at one dollar and fifty cents, are deposited at Wells and Lilly's, Court-street, till the morning of the 9th, after which they will be with Mr. Kuhn, at the Society's Hall, in Brighton; and where, also, those Members of the Society, who have not received their diplomas, can obtain them.

Any Gentlemen having fine specimens of Grain or Vegetables, will please deposit them in the lower Hall; also, any new Agricultural implements, which they may think deserve notice, stating on a card their quality.

It is requested of Gentlemen having fine Fruit, to deposit some with Mr. Dudley, for the Agricultural Dinner, attaching their names to the same, which offerings will be duly noticed by the company.

Per Order, GORHAM FARSONS.

BY T. G. FESSENDEN.

Hate not laborious work, neither husbandry, which the Most High hath ordained.....Ecc. Apoc.

Although some men, with pride elate,
Can't condescend to cultivate
The life-supporting soil,
The HIGHEST husbandry ordain'd,
Nor can the proudest be sustain'd
Without the Farmer's toil.

If Adam, in his sinless state
Was well employ'd to cultivate
The soil, which gave him birth,
One would suppose his sinful race
Would not esteem it a disgrace
To till the fruitful earth.

Yet many a hale and brawny lout
Wont stoop to set himself about
So noble an employment!
In doing mischief, doing nought,
And doing nothing which he ought,
Is plac'd his whole enjoyment.

Some dolts as stupid as a stump,
Have had the happiness to thump
Their pates against a college;
Can construe, possibly, *quid agis?*
And therefore think themselves great sages,
Quite prodigies of knowledge.

Others, perhaps, still greater bores,
Have learn'd the odds, in merchants' stores,
'Twixt muslin and molasses;
But still for manners, means and mind,
Rank with those brutes, he wish'd to find,
Who sought his father's asses:

Yet, being *gentlemen by trade*,
They will not touch an axe or spade,
But, useful labor shunning,
They lounge about in lazy bands,
Throng tippler's shops and tavern stands,
Like rattle-snakes a sunning.

And some the learn'd professions crowd,
Whose shallow pates are not allow'd
To take in two ideas;
Their feeble wits for years they task,
Ere pride will suffer them to ask
What nature's fix'd decree is.

All these, a poor mistaken race,
Think husbandry a great disgrace,
Though Washington thought not;
And hands which empire's rod could wield,
Have been employ'd to till the field,
And bless'd their happy lot.

Now these our lays are not design'd
To undervalue men of mind,
Nor fruits of intellect;
The learn'd professions we would fill
With men of science, sense and skill,
Most worthy high respect.

Still, those professions, 'tis allow'd,
Are sadly cumber'd with a crowd,
A nice but needy train,
Oblig'd to tax their brains with double
A common farmer's toil and trouble,
A livelihood to gain.

Merchants are useful in their places,
But if society embraces
Too many of the caste,
As sure as man's to trouble born,
Straight through the small end of the horn
Some must be squeeze'd at last.

Reader, I don't pretend to say

But what *your* eminency may

Be bless'd with parts uncommon;

A better head and heart, perhaps,
'Than commonly since Adam's lapse,
Are own'd by man or woman.

It does not follow thence, however,
Your hands, so delicate, must never
Perform "laborious work:"

That you should loiter life away,
And vegetate from day to day,
As lazy as a Turk.

You are, perhaps, by mother wit,
As well as education fit
Some famous part to act;
But it is possible there may
Be other great men in your way,
As good as you, in fact.

And if you've reason to suspect
The higher toils of intellect
Are not for you decreed;
Your hands, in useful labor plied,
May, with God's blessing, still provide
For every real need.

Then swing the axe, or ply the spade,
Or work at that mechanic trade
Which suits your genius best;
Become a tinker, rather than
A mischievous, or idle man,
A nuisance or a pest.

And shun those imps, with pride elate,
Who cannot stoop to cultivate
The life-supporting soil;
And contravening God's commands,
Will not employ their heads nor hands
In any useful toil.

From the Boston Daily Advertiser of October 1.
AGRICULTURAL INTELLIGENCE.

The season has been unusually fertile—Indian Corn, our great staple has rarely been better or in greater abundance. All vegetables have flourished unusually well, and the crops are great.—Still it must be admitted to have been a season beyond all example, dry. The springs are lower than they have been for thirty years. A pond which has been full to overflowing for thirty-five years, has been for six weeks past, two feet below its ordinary level. Many wells have failed, which were never known to fail before. The after feed is nearly cut off, and the effects will be felt next spring in the high price of hay, unless we are supplied from the Eastern shore, where the season has been more favorable.

Apples are more abundant and larger and fairer than we have ever known them, but we fear they will be preserved with difficulty. They will ripen prematurely, and cannot be preserved till spring without great care. The use of these hints will be perceived, if those who raise, or buy winter fruit, will in consequence of this intimation, take unusual care in picking their fruit and in its preservation. As the apples are so ripe and of course the skin so soft, it will require more caution to prevent bruises in picking them, which are always fatal to the fruit. Purchasers buy apples by the barrel without inquiring into the *manner* in which they have been picked and put up. Yet one barrel well picked, is worth two carelessly managed. When put up in such a season particu-

larly, and in all seasons, they should be kept as cool as possible.—Any degree of cold short of freezing is not only not injurious but highly beneficial to fruit intended for winter use.—Pears have been fairer and finer this year than for ten years past, but they ripen, and rot much earlier than usual. They should be exposed to the greatest possible degree of cold. It is not probably generally known that winter fruit can be preserved in ice houses till August in perfection, and that cherries and other summer fruits can in like manner be kept perfect for many weeks, long after their season is past.

The sweet potato has flourished this season beyond expectation. It is very sweet and dry—full as good as those raised in New-Jersey, and we think better. We have had them in perfection for seven weeks, since the 6th of August—and on one eighth of an acre, we have raised enough for our own wants, and have been able to send to market what will pay the whole expense. Our neighbours, who attempted to raise them, we are sorry to perceive, have failed, owing partly to the unusually severe, and early frosts of the past week, but more particularly to the injudicious selection of southern seed. They procured them from Virginia instead of New-Jersey. This, like all other plants, must be (to use a southern phrase,) *acclimated*. The peach and cherry were gradually introduced into northern regions. If we should import a peach tree direct from Armenia or Persia, its native region, it would never ripen its fruit with us. It is only by very gentle transitions that we procure in perfection fruits not natural to our soil.

A ROXBURY FARMER.

From the Connecticut Mirror.

Mrs. Wells of Wethersfield, (formerly Miss Woodhouse) has received by the hands of Mr. Marcus Bull of this City, the Medal and twenty guineas which were awarded to her by the British "Society of Arts," for her ingenuity in the manufacturing of the splendid Bonnet, which Mr. Bull carried to London. We have not seen the Medal, but we understand that it is of perfectly pure silver, of about the circumference and twice the thickness of a crown—with various emblematic devices, elegantly executed on one side, and on the other a short inscription stating who gave it, to whom it was given, and for what reason.

In remarking on the new material for fine straw plait, the Connecticut Courant says—

"The importance of this discovery to that country will be readily perceived, when we state that not less than one hundred thousand females, who have been formerly employed in the manufacture of Straw Bonnets, are now either partially or wholly deprived of their only means of obtaining a reputable subsistence.—From the experiments already made in cultivating the grass in England, no doubt remains as to its success; and we may say with safety, that in giving this discovery to our mother country, we make her a valuable return in the account of reciprocating national discoveries and improvements. We sincerely hope that the importance of this discovery to our own country may not be lost sight of; but that immediate and extensive establishments may be formed for the manufacture of domestic Leghorns, as we cannot doubt that such establishments would meet with a liberal support from all classes of society.

NEW ENGLAND FARMER.

Published every Saturday, by THOMAS W. SHEPARD, Rogers' Building, Congress Street, Boston; at \$2,50 per ann. in advance, or \$3,00 at the close of the year.

VOL. I.

BOSTON, SATURDAY, OCTOBER 12, 1822.

No. 11.

CATTLE SHOWS.

From the Middlesex Observer, of Oct. 5.

MIDDLESEX CATTLE SHOW.

The Society of Middlesex Husbandmen and Manufacturers held their annual fair in this town, on Thursday last.

The day was fine, and the number of citizens present from various parts of the county, gave pleasing evidence of the increasing interest taken in these useful exhibitions. At about half past 10 o'clock a procession, composed of the members of the Society and others, proceeded from Mr. Darrah's Hotel to the Meeting-house, where, after a very appropriate supplication to the Throne of Grace, by the Rev. Mr. Field of Weston, an Address was delivered by Mr. Fessenden. As it is expected this Address will be published, we will make but a single remark concerning it, viz. that it fully answered the highest expectations of the audience.

The procession then moved to the Court-house, where the Committee on Manufactures proceeded to examine the numerous articles presented for inspection. The remainder of the procession moved to the field, on which the pens for the reception of animals were erected, and which were well filled. Among the many fine animals which we noticed, we cannot help making particular mention of a superior yoke of steers, (four years old) belonging to Mr. Josiah Hayward, of Westford, and a fat ox, (five years old, wt. 2000) belonging to Mr. Amos Davis, of Groton.

After the animals, manufactures, &c. had been inspected by the respective Committees, a company, consisting of nearly two hundred, partook of an excellent dinner provided by Mr. Darrah.

The repast was concluded by drinking the following toasts, accompanied by a select band of music.

1. The Commonwealth of Massachusetts—She knows where her strength lies—she has patronized agriculture and domestic manufactures.
2. Agriculture the first employment of man; the promise of seed time and harvest was made to such, and to such only as put their hands to the plough and look not back.
3. American Manufactures.—Their superiority is proved by English imitators. We'll show them a yankee trick by and by.
4. The farmer and mechanic, while they pay direct taxes, unequal in their operations, will find some "specific" to render them equal.
5. The farmers' and manufacturers' holidays—They have driven from the field dice-boards and puppet-shows, and have made the most useful exhibitions a feast of pleasure.
6. Our brethren of South America—They have sacrificed the *firstlings of their flocks* to liberty—we offer them the right hand of fellowship.
7. Our fair country women—Let your daughters be educated for domestic housewives, and there will be less show, more substance, and fewer old bachelors.

By the President of the Society.

The Governor of this Commonwealth—The tried patriot—the gallant soldier.

By General Parker.

The encouragement of domestic manufactures—the only system of finance that can equalize our currency, and balance the annual forty millions of surplus importations.

By John Keyes, Esq. one of the Committee of Arrangements.

The Orator of the day—The doctrines he has this day taught us should operate like *quick-lime*, and quicken us in our duty.

At four o'clock, the several Committees repaired to the Court-house, when the premiums were announced by the Secretary. Among the manufactures we noticed with pleasure an elegant carpet, wrought by Mrs. Pitts, of Chelmsford, a fine straw bonnet, the production of Miss Dalrymple, of Marlborough; and a beautiful imitation Leghorn, made by Miss Sherman, of the last mentioned town.

We likewise saw 4 beets, the average weight of which exceeded thirty pounds; a cornstalk, containing five large ears of corn; some very large apples, though none of the latter equalled the New-York *two pounder*.

The performances of the Harmonic Society of this town, at the Meeting-house, and of the musicians who volunteered their services as a band on the occasion, were deservedly well spoken of.

The several Committees awarded the premiums as follows, viz.—

- To Capt. Uriah Manning of Woburn, for the best Bull, \$15
- To David Perham, of Chelmsford, for the next best, 8
- To Benj. Wheeler, of Framingham, for the best bull calf, 4
- To Josiah Hayward, of Westford, for the best working Oxen, 12
- To Edward Wetherbee of Acton, for the next best do. 6
- To Paul Adams, of Concord, for the best Milch Cow, 10
- To Paul Adams, of Concord, for the best Heifer, 8
- To Benj. Wheeler, of Framingham, for the next best, 4
- To Amos Davis of Groton, for the best fatted Ox, 10
- To Wm. Brown, of Concord, for the next best, 7
- To Nathl. S. Bennet, of Framingham, for the best Boar, 4
- To Cyrus Hubbard, of Concord, for the best Sow, 3
- To Zadock Rogers, of Tewksbury, for the best pigs, four in number, 3

Cotton, Woollen, and Linen Manufactures, &c.

- To Mr. Shepherd, of Watertown, for the best piece of Broadcloth, 15
- To the Rockbottom Manufacturing Company of Marlboro' for the next best, being of mixt, 5
- To Stephen Buttrick of Framingham, for the best piece of plain cloth, 6
- To Josiah Melvin, of Concord, for the next best, 4
- To the Rockbottom company, for the best piece of Kerseymer, not less than ten yards, 6
- To Eli Brown, of Concord, for the best piece of Flannel, not less than 20 yards, 6
- To Miss Mary Hurd, of Lincoln, (6 years of age,) for a coverlet, 1
- To Mrs. Pitts, of Chelmsford, for the best piece of carpeting, 6
- To Mrs. Benjamin, of Concord, for the next best, 3
- To Miss Betsy Whitcomb, of Boxboro' for the best woollen coverlet, 4
- To Mrs. Benjamin, of Concord, for the next best, 2
- To John Buttrick, of Concord, for the best woollen blankets, 4
- To Ephm. Osborn, of Dracut, for the best piece of linen diaper, 3
- To Nehemiah Hunt, of Concord, for the next best, 2
- To John Butman, of Tewksbury, for the best woollen hose, 2
- To Miss Emily Wheeler, of East Sudbury, for the next best, 1
- To Kendall Bailey, of Charlestown, for Morocco Skins, 4

- To Abel Moore, of Concord, for the best pair, of Boots, 2
- for the best pair Ladies' shoes, 1
- for the best pair men's calf skin do. 1
- To Wm. Parker, of Peppercell, for the best Foolscap Paper, 2
- To Joshua Pushee, of Acton, for the best hogsheds, for the next best, 3
- To Simon Tuttle, of Acton, for the best barrels, 3
- To Daniel McClenning, of Littleton, for the next best, 2

Inventions, improvements in Machinery, improvements of Husbandry, and all Manufactures, &c. not specially committed to any other committee.

- To Mrs. Sarah Hovey, of Acton, for a most ingenious and elegant specimen of silk twist buttons, 2
- To Miss Sarah Hovey, of Acton, (7 years of age,) for an elegant specimen of ribband, 1
- To Alvan Pratt, of Concord, for a finished Rifle, 3
- To Ezra Warren, of Chelmsford, for a large Plough, 5
- To Reuben Miles, of Concord, for a Churn of his own invention, 3
- To Comfort Foster & Co. of Concord, for 3 water proof Hats, 3
- To James Cogswell, Jr. of Concord, for 3 water proof Hats, 2

The committee on Leghorn and Straw Bonnets report that they have examined several fine specimens of Straw Bonnets, and two of such fine and remarkably nice work, and both so exceedingly well executed that they are unable to say which ought to claim the first premium—they therefore award the same premium to each.

- To Miss Dalrymple, of Marlboro' for two Straw Bonnets, 2 50
- To Col. Joseph Valentine, of Hopkinton, for Bonnets, 2 50
- To Miss Betsey Bennet, of Framingham, for a Leghorn, or grass Bonnet of nice workmanship, 2
- To Miss Sherman, of Marlborough, for a Leghorn Bonnet, 2

The Committee would express the pleasure they enjoyed at finding several other Bonnets of beautiful workmanship; and though they cannot award premiums to all, yet they hope those who have exhibited this day will not be prevented from sending such excellent manufactures to other exhibitions.

The Committee have examined a specimen of Leghorn straw, from wheat imported from Tuscany, by Hon. Samuel Dana, and another specimen, cultivated by Dr. Spalding, of Amherst, N. H. and also a sample of Leghorn straw braid, which give evidence of the increased attention of our agriculturalists to this important article. Your Committee cannot award premiums to the above, yet they would feel disposed to do so, did the funds of the Society permit it.

The Officers chosen by the Society for the ensuing year are

- DAVID LAWRENCE, Esq. President,
- HON. CALVIN SANGER, 1st Vice President,
- COL. JOSEPH VALENTINE, 2d do.
- JOSIAH ADAMS, Esq. Cor. Sec'y,
- NATHAN BROOKS, Esq. Rec. Sec.
- COL. D. SHATTUCK, Treas. & Collector.

From the Salem Gazette of October 4.

ESSEX AGRICULTURAL EXHIBITION.

The Annual Exhibition of Cattle and Manufactures, for the County of Essex, was at Tops-

field on Wednesday last. The day was favorable; the assemblage of people large, and highly respectable.

The number of competitors for premiums was much less than in the last year; and the show of animals (with some exceptions) much inferior. The whole number of animals exhibited for premiums, was about one hundred. It is to be regretted, that in a county possessing so many fine animals, so few of the inhabitants should have public spirit enough to bring them forward. The fear of not being considered first, operates to destroy all the advantages arising from competition.

Premiums were awarded

To Mr. Josiah Lovett, of Beverly, and Capt. Stephen Abbot, of Andover, for the management of a Dairy.

To Mr. Aaron Perley, of Boxford, for the best Cider made in 1821.

To Mr. Benjamin Savary, of Newbury—to Col. Sohn Brocklebank, of Rowley—to Mr. Joseph Osgood, of Danvers—to Billy Emerson, Esq. of Topsfield—to Col. Jesse Putnam, of Danvers—to Samuel Chadwick, Esq. of Bradford—to Isaac Osgood, Esq. of Andover—to John Torrey, of Newbury—to Richard Crowninshield, of Danvers—to Gideon Foster, Esq. of Danvers—to Samuel Hood, of Topsfield—to Hon. Samuel Putnam, of Danvers—to Tristram Brown of Ipswich, for the best Cattle.

To widow Jane Swan, of Methuen—to Susan Young, of Byfield—to Mrs. Crowninshield, of Danvers—to Mrs. Betsey Merrill, of Salisbury—to Mrs. Hannah Perley, of Boxford—to Mrs. Abigail Bracket, West Newbury—to John Hale, of Boxford—to Ebenezer Burnham, of Ipswich, for Domestic Manufactures.

There were exhibited some large and fine vegetable productions. Some corn from Newburyport and Haverhill, the seed of which came from the Indians in the upper part of the Missouri country; and which promises to be a valuable kind of cultivation.

The field for the Ploughing Match was a green sward, laid out in lots 20 rods long and 2 rods wide, containing one quarter of an acre.—The work was well done, and the performance satisfactory to a numerous crowd of witnesses.

The first premium was given to John Brocklebank, of Rowley.

The second premium was given to Benjamin Savary, of Byfield, from the farm of Gorham Parsons, Esq.

The third premium was given to Joel Wilkins, from the farm of Judge Putnam, in Danvers.

A very large number of claims for premiums on Indian Corn and other Crops, and four on the management of a farm, have been entered with the Secretary.

After dinner the members of the Society and others repaired to the Meeting-house, where an excellent, ingenious and pertinent Address was delivered by the Rev. Dr. Eaton, of Boxford.

From the Massachusetts Spy of October 9.

WORCESTER CATTLE SHOW, &c.

(Continued from page 75.)

The Committee on *Manufactures of Cotton and Woollen*, consisted of Hon. Benj. Adams, of Uxbridge, Chairman; Mr. Phin. Bemis, of Dudley, Mr. George Hall, of Mendon, Joseph Bowman,

Esq. of New-Braintree, and Nathaniel Maccarty, Esq. of Worcester. The Committee expressed their deep regret that the goods which fell under their observation were so deficient in quantity, though of good quality. They assigned some of the reasons which, in their opinion, had occasioned the neglect so apparent among our manufacturers, and suggested a remedy. Their report will repay an attentive perusal. They recommended the following premiums:—

To Messrs. Goodale and Co. of Millbury, for the best superfine Broadcloth, of sufficient quantity, \$15
To the Walcott Manufacturing Company, for the best Cassimere, 10
To Sarah Patrick, of Worcester, for the best Carpeting, 15
To Adolphus Bartholomew, of Hardwick, for the next best, 10
To Lovett Peters, of Westborough, for the best Flannel, 10
To Nathaniel P. Denny, of Leicester, for the next best, 5
To Jonathan Mann, of Worcester, for the best Woollen Cloth, of Domestic Manufacture, 8
To Stephen Shepherd, of Berlin, for the next best, 5
To Levi Sawyer, of Bolton, for the best Woollen half Stockings, for men, 2

The Committee mentioned in terms of commendation several articles of superior quality, viz. a piece of Superfine Broadcloth by the Walcott Manufacturing Co. which was deficient in length; a beautiful piece of Flannel, made by Miss Clara Fay, of New-Braintree; another piece, by Mrs. Martha Lincoln, of Worcester; some well knit Woollen Stockings, by a blind woman; another pair, by a woman of 90 years of age, and another pair by one 83 years old; a piece of beautiful blue Sattinet, by Leonard Legg & Co. of Grafton: some handsome Hearth-Rugs, by Miss Sally Penniman, of New-Braintree, and Miss Mary B. Warren, of Leicester; and some pairs of Rose Blankets by Miss Fanny Pierce, of New-Braintree, and Mrs. William McFarland, of Worcester.

The Committee on *all other Manufactured Articles besides those of Cotton and Woollen*, consisted of Bezaleel Taft, jun. Esq. of Uxbridge, Chairman; Col. Henry Sargent, of Leicester; Mr. James Walcott, jun. of Southbridge; Mr. Henry M. Sikes, of Worcester; Mr. Royal Keith, of Grafton; and Col. Henry Penniman of New-Braintree. This Committee remarked upon the importance of exciting a greater spirit of emulation than seems at present to exist among our ingenious Mechanics, who have it in their power to do so much, and who yet content themselves to do so little. They recommended the following premiums:—

To Anna R. Putnam, of Grafton, for the best piece of Linen Shirting, \$5
To Jabez Brigham, of Worcester, for the next best, 3
To Nathan Stone, of Ward, for the best Linen Diaper, 8
To Lemuel Healy, of Dudley, for the best specimen of Sewing Silk, 10
To Harmon Chamberlin, of Worcester, for two Linen damask Table-Cloths, 2
To Abigail Hapgood, of Shrewsbury, for a Straw Bonnet, 3
To Benjamin Read, of Templeton, for the best Sole Leather, 10
To Joseph Griggs & Co. of Millbury, for the best Calf Skins, 10
To John Aspinwall, of Millbury, for the best Morocco, 6
To Stephen Hastings, of Sterling, for the best Butter, 7
To Oliver Barrett, of Bolton, for the next best, 5
To Philemon Wright, of Worcester, for the next best, 3

To Francis Grout, of Worcester, for another specimen, 2
To Ebenezer Tidd, of New-Braintree, for the best Cheese, 10
To Wm. Earl, of do. for the next best, 5
To Seth Goddard, of Holden, for some excellent Barrels, 1
To Josiah Rice, of do. for same, 1

The Committee particularly mentioned several articles as worthy of praise, to which it was not in their power to award premiums, viz. a piece of Linen Shirting, by Sibil Wilcox, of New-Braintree; a Straw Bonnet, exhibited by Elias Whitney, of Lancaster; one by Jonathan Wood, of Worcester; one by Martha Ware, of Shrewsbury; and one by Miss Green of Mendon: some very nice Maple Sugar, by Mr. Ring, of Hardwick; a superb Fowling Piece, by Silas Allen, of Shrewsbury; a Patent Time-Piece by Simon Willard, of Roxbury; some superior Hats, by Joseph F. Seaver, of Northborough; an elegant Covering to a Musick Seat, by Mrs. Elizabeth Davis, of Worcester; a tasteful specimen of Needle Work, by Miss Lincoln, of Worcester; some well manufactured Sole Leather, by Mr. Davis, of Northborough; Calf-Skins, by Messrs. Davis; Morocco, by Messrs. Griggs & Co. and by the Ashburnham Leather Manufactory; and specimens of excellent Butter and Cheese too numerous to mention.

The reports of the respective Committees were accepted by the Trustees, and the premiums recommended, were awarded accordingly.

The Address of NATHANIEL P. DENNY, Esq. will be published under the direction of the Trustees, as soon as it conveniently can be, accompanied with a concise statement of the proceedings of the day.

The Society was complimented by a delegation from the Essex Agricultural Society and from the Windham County Society, in Connecticut. Many distinguished strangers honoured us with their company. Among them, were observed Commodores Rogers and Chauncey, and Capt. Biddle, of the Navy, the Hon. Messrs. LLOYD and QUINCY, of Boston, and JOHN HARE POWELL, Esq. the celebrated agriculturalist, of Philadelphia.

The thanks of the Society are due to many gentlemen who volunteered their services in carrying into operation the previous arrangements.—The gentlemen who acted as Marshals deserved great credit for the promptness and efficiency with which they discharged their duty. The following gentlemen executed this responsible and arduous trust:—Col. Joseph Davis, Col. Samuel Damon, Col. Ariel Bragg, Col. Moses Grout, and Maj. Nathan Heard, jun.

We reflect upon the proceedings of the day with much satisfaction; and we ardently hope that each succeeding Anniversary will exhibit the most unequivocal evidence, that this extensive and populous County is advancing rapidly in those improvements which are the strength, and ornament, and glory of a community.

Oct. 2. 1822.

From the Windsor (Vt.) Journal of Oct. 7.

The second annual Cattle Show and Exhibition of Domestic Manufactures, of the Windsor County Agricultural Society, was holden at Windsor on Tuesday last. The weather was favorable, and the novelty of the occasion (in these parts) together with the lively interest which is felt by every class of our citizens for the

prosperity of Agriculture and Manufactures, brought together, at an early hour, an immense concourse of people. At half past ten o'clock, A. M. the procession was formed and escorted to the Meeting House, where an appropriate and well received Address was delivered by Titus Hutchinson, Esq. a copy of which has been requested for publication, by the Society. The Society then adjourned, to meet at 4, P. M. at which time the several examining committees reported the award of premiums, as follows :

To John Davis, of Springfield, for the best yoke of working oxen \$12
 To David Trumbull, of Hartford, for the best milch cow 8
 To Herschel Davis, of Springfield, for the best bull 10
 To William Jarvis, of Weathersfield, for the best bull calf 7
 To John Davis, of Springfield, for the best heifer calf 5
 To Zebina Curtis, of Windsor, for the best boar 5
 To William Jarvis, of Weathersfield, for the best ram 6
 To Zebina Curtis, of Windsor, for the second best 4
 To Henry White, of Windsor, for the best yoke of working three years old steers 6
 To Daniel Bowen, of Weathersfield, for 2d best 4
 To William Jarvis, Weathersfield, for the best breeding mare with her colt 8
 To Simon Smith, of Hartford, for the best stud horse 8
 To Timothy Curtis, of Windsor, for the best saddle horse 5
 To Henry White, of Windsor, for the best sow and six pigs 5
 To Jones & Gregory, of Windsor, for the best ten sides of upper leather, and best ten calf skins 8
 To Joseph Parker, of Woodstock, for the best pair of boots 2
 To William Jarvis, of Weathersfield, for the best plough 4
 To Jonathan Williams, of Springfield, for the best piece of factory woollen cloth 7
 To the same for second best 5
 To Philemon Hazen, of Hartford, for the best crop of spring wheat raised on one acre of land 7
 To Zebina Curtis, of Windsor, for the best crop of corn raised on one acre of land 7
 To Abel Barron, of Hartford, for the second best 5
 To Luther Spencer, of Weathersfield, for the best piece of household manufactured cloth 5
 To Charles McKensie, of Hartland, for 2d best do. 3
 To Oliver Pierce, of Weathersfield, for the best piece of flannel 5
 To Reuben Damon, of Hartford, for second best 3
 To Moses Pollard, of Plymouth, for best 1000 lbs. of cheese 6

The premium for the best 500 lbs. of cheese was awarded to Mrs. Luther Taft, of Woodstock, but could not be paid at present on account of the want of evidence required by the regulations.

The quantity of corn raised on one acre and five rods of land by Gen. Curtis, was 118 bushels, 31 quarts, and one pint.

The quantity raised on one acre by Abel Barron, Esq. was 104 bushels and 11 quarts.

Besides the animals on which premiums were awarded, there were a great number of thrifty cattle, horses, and swine exhibited, which indicated that the object of the Society had been already greatly obtained—that of exciting laudable emulation. Among the number of these which deserve notice, was a cow, belonging to Mr. William Johnson, of Windsor, from which one hundred and ninety-three pounds and ten ounces of butter was made between the 29th of April and 27th of September last, averaging 9 lbs. a week. The working oxen, cows, &c. of Mr. William Jarvis, not entered for premiums, were very much admired.

There were also exhibited, a variety of ingenious and useful manufactures, for which no premiums were offered, but which were reported by the examining committee to be worthy of premiums from the Society.

Of the premiums awarded, the following were generously returned into the funds of the Society—by William Jarvis, Esq. \$19.00; Gen. Zebina Curtis, \$8.00; Mr. Timo. Curtis, \$5.00.

The following gentlemen were elected officers of the Society for the year ensuing—

Zebina Curtis, *President*.—Jabez Proctor, Titus Hutchinson, Abel Barron, *Vice Presidents*.—Norman Williams, *Secretary*.—Job Lyman, *Treasurer*.—John A. Pratt, *Collector*.

From the American (Vermont) Repository.

The Chittenden County Society for promoting Agriculture and Domestic Manufactures, held its fourth annual meeting at Burlington, the 24th of September.

At an early hour in the morning, a very considerable number of fine cattle, &c. were on the ground designated for the exhibition, and by 10 o'clock the committees entered on the duties severally assigned them. The day was exceedingly fine, and the honest pride and exulting satisfaction that marked the countenances of every individual, seemed to distinguish this anniversary from any previous one, and to have entitled it *peculiarly* to the distinctive and appropriate appellation of the "Farmers' Holiday."—The number of cattle, colts, sheep and swine, was unusually large, and afforded unequivocal evidence of the increasing attention which has recently been paid to the improvement of the breed of these animals. The committees were engaged till about 1 o'clock, in the performance of their respective duties, when they closed their examinations and reported thereon. The Society then moved in procession under the direction of the Marshals of the day, to the Brick Church, where an appropriate prayer was offered by President Haskell, of the University. The Society was then favoured with an address from Elkanah Watson, Esq. of Albany, N. Y. the projector and founder of the celebrated Agricultural Society in Berkshire, Mass. the first Society established upon the plan now universally adopted by the numerous societies throughout the country.

From the Northampton Gazette.

Cattle Show and Fair.—The Hampshire, Franklin and Hampden Agricultural Society will hold their annual Cattle Show, Plowing Match, and Exhibition of Manufactures in this town, on the 23d and 24th inst. The Address, we understand, will be delivered by John Mills, Esq. of Southwick. It is confidently expected that the Farmers and Mechanics will make vigorous efforts to render this Cattle Show and Fair honorable to themselves and the Society, and a powerful auxiliary to improvements in Agriculture, Domestic Manufactures, and the Mechanic Arts. Let not the ladies be deterred by sentiments of false modesty, from exhibiting their various articles of Household Manufacture.—The products of female industry and ingenuity, heretofore exhibited, have done them much honour; and upon their exertions will depend much of the interest and utility of the annual show.

From the New York Statesman.

Explanatory.—In the article headed *Horticulture*, in last evening's Statesman, [see last page] it has been supposed we were not explicit in stating, that the second crop of Mr. Parker's corn was raised from the seed of the first crop, which was the fact, and a fact too, which is believed to be unparalleled in the agricultural history of this state. Mr. Parker has planted seed from the second crop, for the purpose of seeing what advances the third growth will make.

From the Wilmington Watchman.

On the 5th of May last, I sowed half a bushel of Millet seed on an acre and one quarter of ground, which I had manured for the purpose. About the 28th July following, when the heads were yellow and the stalks and blades green, I had it cut. It produced three tons of hay which my horses eat with as much avidity as they would the best upland. It yielded 30 1-2 bushels of clean seed, exclusive of what was left in the sheaves, weighing 49 1-2 pounds per bushel. When manufactured into flour it makes a cake equally palatable as buckwheat, and I believe more wholesome. By not mowing it till the seed are ripe all the advantages derivable from the seed will accrue to the farmer, and the hay will be equally good if not better than if cut earlier. I think I sowed mine rather too thin. I am informed, and from the experiment I made, I believe correctly, that it will produce more and better of both hay and grain if three pecks or one bushel of seed be sown to the acre, according to the quantity or strength of the ground.

"This crop has a great advantage over most others. It is sown and gathered at a time when it does not interfere with other work. My crop was cradled, shocked and bound the same as wheat. It remained about five days in shock, and was thrashed in one day by two men, as it was hauled into the barn, so easy is it to thrash."

WILLIAM WARNER.

Wilmington, Sept. 11, 1822.

From Niles' Register.

Support of the Poor.—When last week we spoke of the richly endowed hospitals and other establishments for the relief of the poor in England, we reprobated those systems that *made paupers to fill them*; believing it far better to provide employment by which persons may maintain themselves in independence and comfort than to furnish means for affording them a beggarly and mean subsistence. A letter from a gentleman resident at or near Williamsburg, O. addressed to the editor, says—"perhaps it may be gratifying to you to know that there is one 'sequestered nook' where the people are not oppressed with poor taxes. We have no pretensions to wealth here; but, for the eighteen years that I have resided in this place, I have not paid or been charged one cent for the support of the poor. It is provided by the laws of our state, that assessments shall be made in the various townships, if necessary, for maintaining the poor—and our township, at the last census, contained eleven hundred and seventy-seven persons." There are not any paupers.

Mrs. Judson, wife of a Missionary, has arrived at Philadelphia from India.

MASSACHUSETTS AGRICULTURAL REPOSITORY AND JOURNAL, FOR JUNE.

(Continued from p. 63.)

A letter to the Corresponding Secretary, on the subject of Fruit Trees, with the signature, "A Norfolk Gardener," contains the following judicious observations:

"The health, habits and fruitfulness of a tree depend upon the habits it receives in the nursery.

First. The health of the tree depends in part on the soil of the nursery, which should be free from manure, and as nearly a good virgin soil as possible. This soil will give sufficient nourishment to the plant without forcing it into luxuriance; and when it is transplanted from the nursery it will not be checked in its growth if the soil into which it is put has never been manured. Young trees are more healthy by being put into pure natural earth than if manured; and when age and decay come upon them they will feel the benefit of this stimulus, if applied, with more effect.

One of the principal causes of ill health or canker in young trees taken from nurseries is, that the nursery men seldom take the trouble to cut off the wood above the bud close to its shoulder, leaving a smooth and sloping surface. If they were to do this the wound would heal the first season; but they usually leave a small piece from which the top has been sliced off without care or reflection half an inch above the shoulder of the shoot or bud, and of course beyond the reach of the sap which issues from it, and from the edge of the live bark to cover the cut. This piece of wood dies, and it will soon communicate its disease to the sound bark and wood, until the evil is beyond the reach of the knife.

Second. The habits of a tree depend in a great measure on the quality of the scion or bud which is put into it, and on the direction given to its branches in the training and pruning them.

The scion or bud should never be taken from a tree that is unhealthy, or that is not in bearing; and the strong and luxuriant shoots should always be rejected. It is even better never to take them from a tree that is very luxuriant in its growth.

If it be an apple, or pear tree, select your scions from the end, or near the end of the fruit bearing branches. The buds of the shoot should be plump, full and healthy. The middling sized scions are the best. The young tree will assume the character of the scion which is inserted into it, and will grow moderately or otherwise; fruitfully or barren, according to the judgment used in selecting the scions and pruning its branches.

If it be a peach that you are to bud, take the fruit bearing shoots of a moderate size with double and triple buds. These will put out blossoms in the spring, which may be rubbed off when the wood bud has opened, and the second year your tree will show fruit. Whereas trees grafted or budded from strong glutinous shoots grow vigorously for many years without giving the cultivator any returns for his labour. I have trees, both pears and peaches, in my garden, which were taken from a public nursery more than ten years ago, and which have always been growing with rapidity, and in apparent good health, but which never produced me

any fruit; and I have others which I have budded myself, which have been constantly in bearing from the second summer after the insertion of the bud or graft. This variance I attribute entirely to the difference in the qualities of the scions, or buds.

Third. There is no doubt that the quality of the soil contributes also very powerfully to the fructification of fruit trees. Different fruits require different soils to make them perfect in their kind; as the Doyenne, or Saint Michael pear produces best in a gravelly soil, while the brown Beurre requires a more nutritious earth and a more sheltered situation to bring it to perfection. But as a general rule, it is better for young trees to be placed in a good, but not a rich soil; as the fructification will be retarded by too rapid a growth: but the fecundity of the tree may be effectually secured by a judicious choice of scions, and a healthy virgin soil that is light and warm."

An article which is headed *Bad Winter Keeping of Cows*, by John Prince, Esq. of Roxbury, contains matter well deserving the attention of the practical farmer. Mr. P. observes that,

"The too general practice of feeding cows in the winter with only meadow hay, (which has less nourishment than good straw) because they cannot sell it, and have plenty of good English hay which goes to market, is I think very bad policy. If meadow hay must be used *in part*, let it be *salted* when put in the barn, and fed in racks, in the yard by day, and *good hay*, with vegetables of almost any kind in the barn, night and morning, and if bran or oil cake meal can be procured, both of which generally may be had at reasonable prices, they ought to be freely used, even though the cow should be dry.

"I had myself an instance of the good effect within three years past, having purchased a high priced and very fine cow, in the autumn, which I put out for the winter in as good hands as any farmer in the country, to be fed as his own stock were; the whole summer, after coming home, though in good pasture, she never gave more than five or six quarts at night milking. The next winter she was kept at home, when she was well fed with *good hay*, and mangel wurtzel, Swedish turnips or carrots, once a day (though dry) and the whole of the next summer she gave from eight to ten quarts at night milking, and has continued ever since, in the summer season to do equally well."

Mr. Prince advises to use meadow hay freely for litter, and to card or curry the animals, by which means he is satisfied that they enjoy better health, and will consume less food, and observes:

"I think it of more importance than is generally believed, that the *male*, to which the cow is sent, should be of a really good breed, even although the calf is not intended to be raised—the veal will be better, and I believe there is no doubt also, it has some effect on the milk for the next season." He thinks that "most farmers, who now keep 10 or 12 cows in the common way, by selecting *one half* the number of their richest and best milkers, would make more butter than they now do, and there is also no doubt, that the manure of well fed animals is infinitely superior to that from mean-

ly fed ones—and I believe the quantity would be as great as from double the number."

In these sentiments we fully and heartily concur. It was a pithy saying of the Rev. Mr. Packard, (if we mistake not) of Marlborough, Mass. that "were dairies estimated by the *pails of milk* they produce, instead of the *number of cows*, many farmers' wives, instead of asking their husbands to buy another cow, would urge them to *sell two* to enrich their dairy."*

"We often see in large families," continues Mr. Prince, "where only *one* cow is kept, and that *one well fed and attended to*, that she gives an abundance of milk and cream, and also makes six or eight pounds of butter per week. This is not so much owing to the qualities of the cow, as the care and attention of keeping her well fed and regularly and thoroughly milked.

"I really wish our farmers generally, would be prevailed on to raise a greater quantity of vegetables for the use of their stock, than they have been in the habit of doing. Swedish turnips and Mangel Wurtzel (of the true sorts) are very easily raised, and every farmer has land suitable for them, when he might not have suitable soil for Carrots, which I think give the richest milk, but are much more expensive in cultivation. These roots with care, even in pits, out of doors, may be preserved till May and June, and yield generally double the quantity that the same land would yield in potatoes. Indeed with me I have usually had more than three times as many bushels per acre, and with I think no more labour. Mangel Wurtzel indeed will by their thinnings and trimmings, if done with care, pay all the labour of the crop, and give a fine evening food for the cows, and is also an excellent food for swine.

A small patch of corn *broadcast or in rows*, and cut after it gets two and a half or three feet high, will give a fine evening food for cows, by cutting it at about one foot from the ground, it will grow again for another crop."

"The statements of the unsuccessful candidates for premiums, whose crops fell in some degree short of those which obtained premiums, with the account of the culture," are next in order. The Editors of the Journal preface these statements by observing, among other things, that "it is not enough to grant a few premiums, limited by our small pecuniary means. The interests of agriculture require, that we should shew that the premium crops were not extraordinary, were easily attainable by all, were in fact almost equalled by others."

We have then a letter from Mr. Samuel Wright, Jr. of Westford, Mass. to the Chairman of the Committee on Agricultural productions, giving an account of his method of culture, by which he raised 78 bushels and 5 quarts of Indian Corn on an acre.

"The ground was a piece which had been laid down and mown six or seven years. I ploughed it late in the fall of 1819, and in the spring of 1820 I planted it with corn and manured it only in the hill with compost, from which I had a decent crop of corn. Early in

* Mass. Agricultural Repository, vol. v, p. 71.

In the spring of 1821, I ploughed the ground coarsely, and spread eighteen or twenty cart loads of coarse manure, then harrowed, and then ploughed the ground very fine, and on the 20th of May planted it in rows, the kernels about nine inches apart, and the same quantity of manure in the row as I spread, which was a composition of horse, hog and door manure. The first and third time of hoeing, I hoed without ploughing; the second time I ploughed and took from the stalk all the suckers which came out next to the ground. The corn growing exceedingly rapid I followed cutting all the stalks which did not set for ears, and those which grew smutty. The corn was a twelve rowed kind, which I have raised a number of years, and more forward than my neighbours generally, and I know of no improvement which I could make except in the furrowing. This season I drew my plough but one time in a row, the ground being stoney, and putting the corn on top of the manure made the row too high; whereas drawing it twice would have made more room for the manure, and laid the roots lower."

Mr. John Dwinell, of Salem, Mass. gives the following statement of his mode of raising a large crop of Carrots.

"The land is situated in Salem, county of Essex; has been broken up about four years; was planted the past year with onions, beets and carrots, ten loads of mixed mussels bed, rotted potatoe tops and barn manure being put on; the soil black and heavy.

The present year eight loads of privy manure, for one yoke of oxen, were put on, spread in four hours, and sown with about one pound of seed: 19th of April the lot was ploughed; 11th May, one day sowing; 11th and 12th June, four days weeding; 9th July, two days weeding; 16th and 17th July, forking; and from 26th October, twelve days labour in digging, measuring, weighing, &c. in all twenty-two days and four hours labour.

The quantity produced on the acre was five hundred and twenty-eight bushels, which at forty-seven bushels, (being very well cleaned) to the ton, gave 11 ton, 4 cwt. 2 qr. 20 lb."

(TO BE CONTINUED.)

FOR THE NEW ENGLAND FARMER.

This is the season when farmers are gathering in their produce and estimating the quantities. They may readily measure their grain by the bushel, and weigh their flax by the pound; but to ascertain the number of their gallons of cider they will find attended with difficulty.

Some years ago I undertook to write a new treatise of arithmetic, better adapted to the capacity of the learner and agricultural business than any heretofore published; in the composing of which I did not take any thing for granted, but demonstrated and proved every rule that I laid down.

In gauging I found that all the rules that any authors had laid down were either very erroneous, or required such a tedious calculation with a vast number of figures as to be liable to error and that their diagonal and gauging rods were at best but a random way of guessing at the contents of casks of different proportions.

I tried various ways to raise a theorem more simple, plain and correct than any that I could

find published, and after nearly despairing of finding any better or more short than the rules laid down by the learned and ingenious James Ferguson, I accidentally hit on the following:

- 1st. Multiply the mean diameter by itself,
- 2d. Multiply the product by the length,
- 3d. Multiply that product by 34,
- 4th. Strike off four decimal points and you have the true contents in gallons and decimal parts of gallons.

The excellence of this rule is, it avoids the tedious process of any long division, and does not require one fourth part of the number of figures as the shortest rule laid down by James Ferguson, and it is equally correct in casks of any proportion.

The dimensions should be exactly taken with a scale that has the inches divided into tenths, and the work will stand as follows: Suppose the

Cask, Bung diameter,	23 inches.
Head do.	20
Length,	32
	2) 48
	24 mean dia.
	24
	96
	48
	576
Multiply by length,	32
	1152
	1728
	18432
Multiply by	34
	73728
	53296
	62,6688

The true content is 62 gallons and ,3688 decimal parts of another gallon.

I could readily give a demonstration of this theorem on the principles of *Euclid*, but leave that as an exercise for the students of mathematics, perhaps if they do not immediately hit on this theorem, they may some other.

This concise rule makes the small allowance that James Ferguson recommended for the spheroidal figure of casks, and if it deviates, it gives a little too much by the inside of the casks not being geometrically round.

If there is any readier way to find the contents of a cask, I believe I have it in a treatise I have written on a *new science*, that I call *Semi Geometry*, and which teaches how to project almost every thing necessary in country business, with a plain scale of equal parts, and pair of dividers, without any calculations by numbers. I carried it so far as to project extracting the cube root and gauging casks, and finding their ullage.

To find the contents of a cask by *semi geometry* is a very handsome projection, but the figure cannot be intelligibly described in a newspaper, without a large plate—yet, to such as are well versed in *Euclid* I may render myself intelligible, for to such if they are expert with a scale and dividers the contents of a cask, without any calculation, may be projected into a parallelogram, of equal contents superficial measure.

That for a large cask, would be extensive, and may be reduced, although 231, the cubic inches in a gallon, is an uncouth number to divide—it will divide by 3 and 77 only; then suppose the parallelogram is projected for 3 inches deep, we have 77 to divide again, that will divide by 7 and 11 only, then project the reduced parallelogram to one of equal content 11 wide, then step off the gallons by 7.

Semi Geometry is a science that all farmers ought to learn, in order to be ready to lay out any kind of farmers or mechanical business.

In my treatise of arithmetic I taught decimals with whole numbers from the first numeration table, in order to suit the currency of the United States. I taught that there was but simply the nine numbers in nature, that any thing further than nine was but repetition, according to place in the numeration table. That nine was the *Crown Number*, and would prove any calculation within the four rules in whole numbers, and taught how to prove them, as also if there was an error in multiplication to shew whether it was made in multiplying or adding, and if in long division whether in multiplying or subtracting.

When I came to treat of interest, I disliked very much any rules that I could find published for calculating interest for days or broken time, as the work was too tedious and too much lost in little fractional remainders to be correct. I tried a variety of ways to form some better and more exact rule that would not require so many figures—until I discovered *nine proportionate Logarithms* (and there is no more in nature) that will shew the interest of any broken sum of dollars and cents for any broken time or number of days, or at any rate per cent—and bring out the whole in one sum to the ten thousandth part of a cent, with less figuring than any other mode, and without any division, which I believe the greatest of my discoveries.

I shewed them at several of the banks that I could calculate interest quicker and more correct than any clerks they had—but they spurned at such instruction. I then tried to sell my *copy right* to several printers—they would not buy it because they said it was not like *Dilworths* and other treatises. I told them if it was like other treatises there would be no need for them to buy it—and that if people would be such slaves to custom as not to look at any thing new, they never would advance in improvement.

At this advanced period of life I believe that my labours for the benefit of the public must die with me, except some few ideas that may be retailed in newspapers.

SAMUEL PRESTON.

Stockport, Pa. Sept. 19, 1822.

Camden, (N. J.) September 17.

We have seen a specimen of Cotton of a strong and silky texture, raised in a garden of a gentleman in Camden; most of the pods on the stalks are likely to come to maturity, although the seeds were planted quite late in the spring. We understand that the cotton has been pronounced by a gentleman from Louisiana, equal to that which grows in the southern States.—Who knows but that the cultivation of cotton, on particular species of soil in West Jersey, may at some future period, become an object worth the attention of the farmer!!

N. E. FARMER.

BOSTON:—SATURDAY, OCT. 12, 1892.

BRIGHTON FAIR AND CATTLE SHOW.

The annual exhibition of Cattle and Manufactures was holden at Brighton on the 9th and 10th inst. The fair was attended by a large concourse of citizens from Massachusetts and the adjoining States, including some from the southern section of the Union. Fine animals, fine manufactures, fine vegetables, rare, curious and useful machines, the best products of the soil, and the best results of mechanical ingenuity, proofs of industry excited by emulation and guided by skill, were exhibited in profusion. Detailed accounts of all that was worthy of notice would be too voluminous for insertion, and are rendered unnecessary at this time, as we propose to publish the official reports of the several committees, as soon as received.

At one o'clock, of the first day, the Society went in procession to the Meeting House. A prayer by the Rev. Dr. Foster, and an Address by the Hon. TIMOTHY PICKERING, composed the exercises at that place. Mr. Pickering's Address was plain, practical, and replete with valuable information. The subjects treated of, (such as the theory of vegetation, the food of plants, the uses of lime and the mode of its operation, &c.) were some of them abstruse, but rendered as perspicuous as possible by the venerable Orator, who adapted his style to the unlettered as well as to the learned hearer, by giving the common as well as the scientific name to such substances and ideas as could not be supposed to be familiar to all classes of his audience.

On the second day of the Exhibition, at 4 o'clock, P.M. the Premiums were declared in the Meeting House. The first premium of \$10 for fat oxen was awarded to Mr. Oliver Starr, of Deerfield—this animal was six years old and weighed 2333 lbs.—2d premium \$30, to Lewis Barnard, of Worcester, animal six years old, weighing 2256 lbs. To Maj. Jaques, of Charlestown, for his Bull, 1st premium, \$30—2d do. to Mr. Coolidge, of Watertown. To the owner of a Cow from Salem \$30. Several other fine animals were spoken of as richly deserving a premium. For Heifers, the 1st premium was awarded to Henry Rice, of Marlborough, for one two years old, with a calf six weeks old, weighing 88 1-4 lbs.—2d do. to Samuel Brooks, of Brighton.

For the best Boar, to Joseph Rice, \$10. Mr. Sparks, of Watertown, 2d best, \$5. For four Pigs, to Luke Fiske, \$5. To A. Dow \$5. For a Merino Ram, the first premium was awarded to Gorham Parsons, Esq.—2d to Gen. Austin.

Mr. S. Jaques, of Leicester, received a premium of \$50, for a breed of long woolled Sheep, 6 ewes and 1 lamb. A Ram and two Ewes, remarkable for heavy fleece, fine wool, &c. were

exhibited by Hon. T. H. Perkins, though not for premium. The committee, however, are of opinion, that he ought to be presented with the Society's gold medal.

Twelve yoke of Working Cattle were entered. The 1st premium, \$30, was given to Luther Whiting, of Sutton—2d do. \$25, to Peter Dudley, of Sutton. Several other premiums were divided among people from that town.

Among the inventions was a cast iron roller, by Aaron Willard. A Vertical Family Spinner, which has been for some time in use in Rhode Island, was well spoken of for its labor saving qualities.

Of Manufactures, the 1st premium of \$30, for Broadcloths, was awarded to James Shepherd & Co. of Northampton—2d do. \$20, to Wolcott Woollen Manufactory—2d do. on Cassimeres to Shepherd & Co. To George Johnson, Salem, for a quantity of American Duck, \$10.

There were only three premiums awarded at the Ploughing Match, viz. to J. Cook, of Brookline, 1st premium \$20—to J. Curtis, Roxbury, 2d do. \$12—To Stedman Williams, Roxbury, \$8. The work was done in from 22 to 46 minutes, making 18 to 20 furrows.

The above is but a hasty sketch of the proceedings on this occasion, and is partly the result of personal observation, and in part abridged from the Boston Daily Advertiser. We hope it will allay, if not gratify, public curiosity, till the official account is received.

ON SAVING AND MAKING THE MOST OF MANURE.

(Continued from page 63.)

In our preceding observations under this head, we took a concise view of the controversy existing among agricultural writers as well as practical farmers relative to long and short, fermented and unfermented manure, and mentioned the names and opinions of some eminent writers, who had taken opposite sides of the question. We likewise attempted to shew that the disputants were not, in our opinion, exactly right, nor altogether wrong—That in certain soils and for certain crops, long manure, which had undergone but a slight and incipient fermentation, was to be preferred—but when used for white crops, and indeed any crops which cannot conveniently be hoed or weeded, or probably when applied to soils containing acids or some principles which would prevent fermentation, and stop the progress of putrescence and dissolution, it must be well rotted.

Rotting manure, however, in a barn-yard or in any situation in which its volatile and liquid products escape into the atmosphere, or soak into ground not designed to support vegetation, is very slovenly and wasteful, and always to be avoided if possible. The steam, effluvia, or gas which is suffered to escape from fermenting manure, is not only almost altogether lost to useful vegetation, but, what is still worse, fills the atmosphere with particles injurious to health, and often destructive to life. The evaporations from a manure yard rob the farmer of a part of his substance, starve his crops, and it is well if they do not moreover poison him and his family by their contaminating influence. Some farmers' barn-yards, hog-pens, and other receptacles of manure are very offensive, and if they do not generate typhus fever in its worst form, which we fear

is frequently the case, they at least cause a degree of languor and debility which embitters existence, and in a great measure disqualifies for any of the useful purposes of life. It is a fact that those exhalations, so injurious to animal life, are the essence of vegetable life, and the volatile substances, which offend our senses and injure our health, if arrested in their transit by the hand of skilful industry, may be so modified in the great laboratory of nature as to greet us in the fragrance of a flower, regale us in the plum or nectarine, or furnish the stamina of life in substantial viands, composed of materials drawn from the butchers' shambles.

If we are correct in these premises, an important axiom may be deduced, viz. *No putrefactive process ought to be suffered to proceed on a farmers' premises without his adopting some mode to save, as far as possible, the gaseous products of such putrescence.* These gaseous products constitute important elements of vegetable food, and a farmer may as well permit his cattle to stray from his stall, or his swine from his sty, without a possibility of reclaiming them, as suffer the principles of fertility, expelled by fermentation and putrefaction, to escape into the atmosphere for the purpose of poisoning the air, instead of feeding his plants. It is very easy to arrest these particles. A quantity of earth applied to, or thrown over the matter in which fermentation is going on, will check its violence, and secure its gaseous products, which will be imbibed by the soil and afterwards yielded to plants in such proportion as the wants of vegetation may require.

"Fermentation," says an able writer, "that great destroyer of all organic conformation, is not to be feared by the farmer, if it be conducted and carried on in the presence of earth, which fixes and secures the gases as fast as they are liberated. Even the degree of the process is a matter of less consequence; because if the elementary principles are in keeping, and reserved for future usefulness, it is immaterial whether this has happened by a new absorption, or by still holding their original and unchanged form. In his composite hill [compost heap] the whole animal or vegetable structure may be dissolved, and leave behind no trace of existence, without the least waste of the principles of fertility; because the ingredients superadded to the dung have become surcharged with them, or to speak philosophically, fully saturated. We may go farther and state, that complete decomposition is desirable in this case, which is so much to be avoided in the farm yard; because putrescent matter can only become vegetable food by its resolution into primary parts, and if this be effected by any preparatory step, the young crop receives the full and instantaneous benefit. The compost manure is carried to the field ready to give out its richness on the very first call, and to supply the nascent radicle [young root] with a copious share of nourishment.

"The putrefactive process may be carried on in the presence of pure earth only, or of earth intermingled with fibrous roots, or lastly, in the presence of peat, which is an assemblage of inert vegetable matter; and compost dunghills may be formed according to this threefold method.

"The simplest of all composts is a mixture of barn yard dung, and surface mould taken from a field under regular culture. The proportions between the ingredients are fixed by no determinate laws, and consequently great liberty is allowable to the operator. I have known some instances where two cart loads of dung were used for one of earth; others, where they were blended in equal quantities; and it is not infrequent to compound two of earth with one of dung. In fact, such is the uncertainty in the composition, that almost every farmer adopts a mode peculiar to himself, and with equal success. No man need therefore follow implicitly the rules which are laid down in this department of rural economy, but may vary and multiply his experiments, according to the suggestions of fancy or the dictates of convenience. If we slightly glance at the principle, we shall see the cause of this seemingly endless variety in the combinations of the ingredients. The

THE NEW ENGLAND FARMER,

PUBLISHED BY THOMAS W. SHEPARD, ROGERS' BUILDING, CONGRESS STREET, BOSTON.

SEVERAL numbers of a Newspaper, with the above title, have been published in Boston, and have met the approbation of intelligent Agriculturists, and an enlightened public. The following remarks relative to this publication, are the result of the unbiassed and disinterested deliberations of highly respectable and very competent judges, whose names, and the observations to which their signatures are attached, must render farther recommendations superfluous.

NEW ENGLAND FARMER.—Published by Thomas W. Shepard.

The opinion of the subscribers having been requested in favor of this publication, with the avowed and very proper wish, on the part of the publisher, that it might tend to the increased circulation of his Journal. (the first, avowedly devoted to the interests of agriculture in New England,) we cheerfully afford our testimony, as far as it may be of any value to him. Though the American public, when compared with that of other nations, may be considered a thinking and reading one, yet from various causes, which it cannot be necessary to state, much the greater part of its reading is confined to, and its information obtained through daily, weekly and other periodical journals. In a country, in which the Elective power as to almost all offices, is enjoyed and exercised by the great mass of the people, it is natural, that politics, including the national, state, county and town interests and concerns, should occupy much the largest share of our public journals—next to these, commerce and manufactures must of necessity hold a high rank. These require so much more constant and more accurate information—so much in those branches depends on political, commercial and agricultural events abroad—so much on the state of foreign markets, on losses and disasters at sea, that it is not surprising that nineteen twentieths of all our newspapers are occupied either with politics or commercial news. So much is this the case, that it was doubted for a long time whether an Agricultural Newspaper could be supported—but the success of the American Farmer, printed at Baltimore, by John S. Skinner, Esq. and the Plough Boy, at Albany, by Solomon Southwick, Esq. has proved that there is a sufficient degree of zeal and intelligence and desire of knowledge among the cultivators of the soil to sustain a few purely agricultural papers. If one is to be added to the two, which now exist, among the several thousand Newspapers now printed in the United States, it would seem that New England is its natural and most proper situation, and Boston as conveniently placed for its publication and correspondence as any place in New England. We hope we have as many thinking and reading farmers in the Six New England States, not only as any other portion of this country, but as any equal portion of the cultivated world can afford or furnish.

It seems to be absurd, that farmers should subscribe for papers devoted exclusively to questions in which they have only a remote interest, and should decline giving their aid to one entirely devoted to their instruction, amusement, and to the record of their improvements, doubts, queries, discoveries and speculations. The paper now commenced has every thing to recommend it as far as we have had an opportunity to judge. Mr. Shepard is well known as an editor of a valuable paper at Northampton. That he has all the professional skill, and the requisite liberality in the execution of his work, is manifest by the numbers already published. They are neatly executed on good paper and with a fine type, with great care and accuracy, far above, in these respects, (we may say, without offence, we hope,) any other like publication. His present assistant, THOMAS G. FESSENDEN, Esq. is a man of reading and talents, and has paid great, and for our country, almost unexampled attention to agricultural subjects. His mind is philosophical, and his attention is undistracted by other pursuits. His life has been principally devoted to such subjects. The numbers as yet issued are respectable, as much so as could be expected, before the public at large had taken an interest in the work. We hope that it will succeed, but that must wholly depend on the aid which the intelligent Divines, Lawyers, Physicians, and practical Farmers in the country will afford it. That aid must consist not only in taking it and paying their subscriptions—that to be sure, is its necessary food, without which it must starve—but in favoring it by communicating their thoughts, experiments, objections to existing practices, or to new projected improvements. It should be remembered, that this is a mere Newspaper, and therefore, that a man who would not write a book in his own name, or an article for the Massachusetts Agricultural Repository, need have no scruple in writing for this.

AARON DEXTER, *President of Massachusetts Agricultural Society.*
S. W. POMEROY, *1st Vice President.*
THOMAS L. WINTHROP, *2d Vice President.*
JOHN LOWELL, *Corresponding Secretary.*
RICHARD SULLIVAN, *Recording Secretary.*
BENJAMIN GUILD, *Assistant Recording Secretary.*
JOHN PRINCE, *Treasurer.*
J. WELLES, S. G. PERKINS,
P. C. BROOKS, JOSIAH QUINCY, } *Trustees.*
E. HERSEY DERBY, GORHAM PARSONS, }

The New England Farmer is published weekly, on Saturdays. Each No. contains 8 quarto pages, printed on a sheet of good quality, with an entire new type. The price is \$2.50 per annum, *in advance*, or \$3.00 at the close of the year.

Each volume will comprise 52 numbers, and the present volume commenced the first Saturday in August. A title-page, and a correct and copious index will be given at the end of each year.

Persons who will procure seven subscribers and become responsible for the payment, will be entitled to a copy gratis, and in the same proportion for a larger number.

Congress-street, Boston, Oct. 1822.

✂ Editors of papers with whom we exchange, by giving the above an insertion, will confer a favor which we shall be happy to reciprocate when an opportunity offers.

only use of intermixing the soil with the dung is to imbibe the gaseous elements of vegetable life, and hinder their dissipation. If there be much soil, these elements will be diffused through it with less density and compression; if little, it will be more abundantly saturated, and enriched with the nutritive vapors. The only error, into which the farmer can run, is to supply such an inconsiderable quantity as will be incapable of imbuing the elastic and volatile particles, and thus by his own mismanagement, occasion a waste of the vegetable element. One cart load of soil to two of stable dung is the least proportion which he should ever attempt to combine, and perhaps if the two were mixed equally, it would be compensated for the additional labour and expense."

"Simple earth, although excellent for bottoming and strewing over the pit dug near the barn, is of all materials the most unprofitable in compost dunghills. A matted sward thickly entangled with roots, or mud ragged from the bottom of bogs or ditches, and replete with aquatic plants, are clearly preferable on this account, that, besides bringing earth to the composition, they supply a large proportion of vegetable matter. Whenever the soil must be carted to the heap, it is better to lay out the expense in transporting these enriching materials; because they will not only equally absorb and retain the evaporating gases, but greatly augment the quantum of manure."

The path proper for a farmer to pursue in order to make the most of his manure and preserve his own health and that of his family is plain and straight as a turnpike. Whenever putrid fermentation is going on, in any part of his premises, and consuming his substance by a slow but wasteful combustion, let him apply earth, peat, or some earthy substance, in quantities sufficient to attract, imbibe and retain all the effluvia. Health, profit and cleanliness equally require such proceeding. We shall say a word or two upon the latter topic. If a man were to swallow daily, a quantity of filthy matter, or to eat his food impregnated with steams from a manure heap, or from some other strewing and offensive substance, when he might, with a little exertion, avoid such nauseous viands, and substitute something nourishing, palatable, pure and wholesome, we should be apt to set him down for a sort of Hottentot. But, *a man may almost as well take dirt into his stomach, as filthy effluvia into his lungs*—may about as well die with a crow or a buzzard, sup with a toad "on the vapor of a dung-hill."

* *Letters of Agricola.*

(TO BE CONTINUED.)

✂ We have received an official account of the Essex cattle Show, which did not come to hand till after the title on that subject, which we have extracted from the Salem Gazette, in type. We hope what we have printed will be a satisfactory substitute for the more detailed account.

Meteorological Journal.—Our attentive Waltham correspondent has sent us his Journal for September, which we shall insert on Saturday. Our correspondent notices, as remarkable, "that the 29th of the month was the warmest morning, at sun rise, that has been experienced for two years; and also, that the mornings the 23th, 29th, and 30th, were warmer than any three successive ones for the same period." He adds, "except a few days, the month has been uncommonly warm, pleasant, and dry; and never was known a more favorable time for ripening and securing the various productions of the earth. Reckoning from the commencement of the warm weather, which was the first day of May, we have passed a long and delightful Summer, and been richly blessed in our basket and in our store."

Wednesday's Centinel.

Among the interesting objects exhibited at Brighton on Wednesday, we noticed three sons (by one birth) of Mrs. Willis, wife of Joseph Willis, of West Sudbury, in this state, a soldier of the revolution. Their names are George Washington, John Hancock, and Samuel Adams. They are now 23 months old and weigh 71 lbs. The mother is 48 and her husband 57 years old.—*Pat.*

RURAL LIFE.

Oh, knew we but his happiness ; of men
The happiest he, who far from public rage,
Drinks the pure pleasures of the *rural life*.
Sure peace is his ; a solid life estranged
To disappointment, and fallacious hope ;
Rich in content ; in Nature's bounty rich,
In herbs and fruits ; whatever greens the spring.
When heaven descends in showers ; or bends the bough,
When summer reddens, and when autumn beams.
Here too dwell simple truth ; plain innocence ;
Unsullied beauty ; sound unbroken youth,
Patient of labor, with a little pleas'd ;
Health ever blooming ; unambitious toil ;
Calm contemplation, with a mind at ease.

From the New-York Statesman.

Horticulture.—Mr. Parker, of the village of Greenwich, has been actively engaged for several seasons, in making experiments for the improvement of horticulture, which has been too long, and too much neglected in this country.—It is almost incredible what quantities of vegetables may be raised in a common kitchen garden, by proper cultivation. On a soil not apparently remarkable for its fertility, Mr. Parker has now ripening a second crop of corn, which grew this season, an ear of which has been left at our office, and which is already sufficiently advanced for seed. He has a fine bed of beets now growing, and nearly arrived at maturity, on the same ground, from which he has the present season gathered a crop of onions. Some of his vegetables, such as beets and squashes, are of a monstrous size. But what is still more rare, he has rows of cotton, both Upland and S. Island, now ripe for the harvest, and will probably attend the Agricultural Fair in this county, *clad in a suit of cotton reared by his own hands*. We understand that another wealthy and enterprising citizen intends to appear in a similar dress. A fine boll of Mr. Parker's cotton, resembling in its present appearance a water-lily, and also a stock of rice, which grew in his garden, have been left at our office for the examination of the curious.

From the Boston Statesman.

Wool.—We have often urged our country brethren to the growing of this staple material, and we now call upon them again to double their exertion in producing this necessary article of consumption from their farms. The British government sometime since laid a duty of 6d sterling per lb. on wool, which has caused an influx into this country.

We understand from July to September inclusive, of this year, there have been brought into this port 222,846 lbs. of wool, principally from Russia, Sweden, Lisbon, and Smyrna.

The importance of so employing the industry of our population must be obvious, and the uselessness and impropriety of suffering foreigners to be exhausting the wealth of our country, in cases where we possess so many advantages must be apparent to every mind.

From the Philadelphia National Gazette.

Steam Engine.—Thomas Halton, an intelligent mechanic of this city, has constructed the model of a steam engine, in which the propelling power is applied, in a manner altogether different from that, in which steam has been

used heretofore, in the movement of machinery. The model consists of a wheel of brass, about six inches in diameter, on the periphery of which the steam is applied in chambers, formed by the wheel and a metal rim which surrounds it.—The steam introduced into these chambers, acts upon blocks of metal or pistons closing the chambers, and makes strokes almost equal in length to the circumference of the wheel. The machinery for inducting and educting the steam is ingenious and well adapted to its object. The advantages proposed by the inventor are simplicity, and economy in the cost of construction, in the consumption of fuel, and in the number of hands necessary to work it. As the motion is rotary, he avoids thereby the necessity of the balance wheel, and the loss of time between the ascent and descent of the pistons. The weight will not exceed half that of an ordinary engine, and it will not occupy more than half the room. The model which is completed has been put in motion with atmospheric air, the wheel moving at the rate of 150 revolutions per minute, under a pressure of one pound per square inch, applied upon a piston not exceeding half an inch in diameter.

SELECTED FOR THE NEW ENGLAND FARMER.

If you rise from table with an appetite, you will not often sit down without one.

The smaller the drink the clearer the head, and the cooler the blood.

Men are now-a-days more careful of the breeds of their horses and horned cattle than of their children, though careless enough of the former. But as to the latter, money works wonders ; it conceals all defects, mental and corporeal.

Between a man and his wife nothing ought to rule but love. Authority is for children and servants.

Friendship is a union of spirits, a marriage of hearts. Choose a friend as thou dost a wife, till death separate you.

Some are so foolish as to interrupt and anticipate those who speak, instead of hearing and thinking before they answer. This is uncivil as well as silly.

Equivocation is *half way* to lying, and lying the *whole way* to hell.

It is wise not to *seek* a secret, and honest not to *reveal* one.

He that has more knowledge than judgment is made for another man's use rather than his own.

It is folly to dispute upon many things which are disputable. If you cannot agree, you may consent to disagree, and think differently from your friend without quarrelling with him.

To be very subtle and scrupulous in business is as hurtful as to be over confident and secure.

To hazard much in order to get much, savors more of avarice than of wisdom.

There is no character in society more to be pitied, as well as despised, than the idler. He is not only irksome to himself, but he hinders the industry of others. Bishop Taylor once said to a lady who neglected the education of her son, on the plea that he was too young to be confined to study, "Madam, if you don't fill your son's head with something the devil will."

Happiness ever flies away fastest when most eagerly pursued, and no galley slaves labor harder than those who devote their lives to the pursuits of pleasure.

He who has the character of a crafty and tricking man, is entirely deprived of a principal instrument of business, and will find nothing succeed to his wish.

Though the life of man be short of a hundred years he gives himself as much pains and anxiety as if he were to live a thousand.

The celebrated Dr. Cotton Mather, as a precaution against the calamity of tedious visitors, wrote over the door of his study in large letters, **BE SHORT.**

From Relf's Philadelphia Gazette.

THE SALUTING BONNET.

Mr. Relf—I can give no better name than the above to some of the fashionable Leghorns which are now worn by the ladies. The front brim is so constructed and protruded, that the motion of the lady's walk keeps it in a perpetual *nodding* action ; and I defy any person, with the same eye-sight I possess to ascertain across the street, whether the ladies mean that you should *touch your hat* in return. I have committed several mistakes in this way ; and have afterwards found, to my no small chagrin, that it was not the lady, but the lady's *bonnet*, that was so familiarly *nodding* to me across the street. It was only yesterday morning as I was coming down Chesnut street I was thus *nodded* to by three ladies on the other side. It was so very familiar, that I could not with any pretensions to gallantry avoid crossing, when lo ! to my utter confusion the ladies were perfect strangers to me !—Asking pardon, I made a clumsy congee, and proceeded on my walk. This head attire might lead to some unpleasant effects, or misunderstandings. Yours, *A Middle Aged Beau.*

A CLINCHER.—This term is frequently used, but its origin is not generally known. It is thus given by an English magazine. Two journeymen mechanics were one day contending for superiority in the art of invention, and at length laid a wager which of them could coin the greatest lie. When the stakes were deposited, he that was to begin declared that one moonlight night he threw a ten-penny nail with such force that it went quite through the body of the lunar orb, which was then at its full. "That's true," said his opponent, "for I was on the other side at the very moment, and with my claw hammer I clinched the nail." The last fellow was adjudged the prize, and from that time every outrageous falsehood has been termed a clincher.

NEW PEDESTRIANISM.—An idle disorderly fellow at an inn, having proposed to walk for a wager, "you had better," said the landlord "walk about your business."

TURKISH LOGIC.—A young man desperately in love with a girl of Stanchio, early sought to marry her, but his proposals were rejected. In consequence, he destroyed himself by poison.—The Turkish police arrested the father of the obdurate fair, and tried him for culpable homicide. If the accused (argued they with becoming gravity) had not had a daughter, the deceased would not have fallen in love, consequently he would not have been disappointed, consequently he would not have swallowed poison consequently he would not have died ; but he (the accused) had a daughter, and the deceased had fallen in love, &c. Upon all these counts he was called upon to pay the price of the young man's life ; and this being fixed at eighty piastres, was accordingly exacted.

It was said that the pope advised Petrarch to marry Laura—but that the poet refused because he feared that the familiarity of marriage would extinguish his passion. A blunt person on reading the anecdote observed, "there is a fool who won't eat his dinner, lest he should lose his appetite."

NEW ENGLAND FARMER.

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Vol. I.

BOSTON, SATURDAY, OCTOBER 19, 1822.

No. 12.

At a regular meeting of the Society of Middlesex Husbandmen and Manufacturers, holden at Darrak's Hotel, in Concord, on the 3d day of Oct. A. D. 1822, VOTED—

That DAVID LAWRENCE, JOHN KEYES and NATHAN BROOKS, Esq's. be a Committee to present the thanks of the Society to THOMAS G. FESSENDEN, Esq. for his excellent and useful Address delivered before the Society this day, and to request that the same may be published in the New England Farmer for the use of the Society.

Extract from the records of the Society.

N. BROOKS, Recording Secretary.

ADDRESS.

Mr. President, and Gentlemen Trustees of the Society of Middlesex Husbandmen and Manufacturers,

HAVING had but short notice to prepare for the present occasion, and a variety of other avocations presenting imperious claims to my attention, I am apprehensive I shall not be able to answer what may be deemed reasonable anticipations. The embarrassment, caused by these circumstances, is increased by reflecting that the subjects, which it would be proper for me to discuss, are not only of great importance, but have, heretofore, commanded the exertions and tested the powers of the first talents in the United States. I am invited to reap in a field where the harvest has been already gathered by such laborers as Mr. Madison, Mr. Pickering, Mr. Quincy, Mr. Lowell, and others, who carry a wide swarth, make clean work, and scarcely leave a single straw to be picked up by those who are called upon to glean on the same ground. Still, although my toils may produce but a pittance, they will, at least, serve as indications of good will towards the cause of Agriculture and the Useful Arts; and we know that the widow's mite was as acceptable as if it had been the largess of an Emperor, or the revenue of a kingdom.

The pursuits of agriculture have been held in the highest estimation among the wisest and most powerful nations. Indeed to neglect that art would indicate a want of wisdom, and the consequence of such neglect would be a want of power. Where husbandry excites but little attention, there can be but little worth attending to. The conveniences and comforts of life must be unknown; and even its necessities—its indispensables, must have a fluctuating and precarious existence. Distress waits on improvidence; want treads on the heels of indolence; disease and death close the ghastly procession. Thus famine was frequent among the aboriginal tribes of New England, and together with pestilence, its usual concomitant, desolated the land, and left large tracts of country without an inhabitant to impede the settlement of the pilgrims. The natives of this country owed those calamities, and at length their utter extinction, to their ignorance of agriculture, and want of acquaintance with those arts which give subsistence, and minister comfort to civilized man. Had the poor Indians been Husbandmen and Manufacturers, this part of the continent would have been still possessed by its primitive inhabitants. Should we neglect the arts, and pay no attention to the pursuits of the Husbandman and

Manufacturer, we too must cease to be a nation; and our country will be occupied by a stronger, because a wiser people, to whom superior knowledge in Agriculture and Useful Arts has given superior power. The United States will then exist only in story, and occupy only a few pages in the annals of alien possessors of this goodly heritage of our fathers.

Important as Agriculture is, Manufactures can hardly be deemed of less consequence. They must advance hand in hand, or they will both go backward. United they stand—divided they fall. They are the Urim and Thummim of national greatness, as well as the Alpha and Omega of individual prosperity. To talk of any clashing in their interests is to speak of hostility between the right and the left hand of the same individual. If one is sick, the other will faint. If one perishes, the other must soon be annihilated. Agriculture without Manufactures would give us farmers without tools, and Manufactures without bread. Adam could not have dressed the garden of Eden without first becoming a mechanic, or being furnished with the necessary implements of husbandry by the ALMIGHTY ARTIZAN, who exhibits the Universe as a sample of his Manufactures.

Since, then, not only our prosperity, but even our national existence depends on the successful pursuits of Agriculture and Manufactures, what can we do to promote them? This is a question of as great importance as any thing of a finite nature, which can possibly call for the exercise of the best intellectual powers and faculties given to man by his Creator. To state all which should be done would require a complete and very voluminous Cyclopaedia. I shall therefore confine myself to some remarks relative to what *ought not to be omitted*, if we wish agriculture to acquire and maintain that strength and stability which should be attributes of the principal pillar of public and private prosperity. As respects manufactures, I shall have but little further to observe; lest, peradventure, I should have more threads to my discourse than my staple will warrant—more irons in the fire than I can handle to advantage.

In order that agriculture may prosper.

- I. Its pursuit must be considered as honorable.
- II. It must be made profitable.
- III. It must be conducted with skill as well as with industry.

The pursuits of agriculture, are, probably, rising in public estimation. Still we do not believe they have yet risen to their proper elevation. That a further ascent may be effected, agriculture must continue to command the attention and patronage of men of wealth, of talents, of reputation, and of high official character. Persons who have it in their power to mould the manners and excite and direct the industry of mankind should not consider themselves as too great to be useful, and should throw the weight of their precepts, example and influence into the scale of agriculture—they should employ their heads if not their hands, their money if not their personal labor, in promoting an art, which, if neglected, would

place them as well as their inferiors on a level with savages. They have great examples to serve as precedents. The Emperor of China does not think that it derogates from his dignity to act the part of a ploughman. The great Czar of Russia did not disdain to labor as a mechanic. Some of the principal noblemen in Great Britain are proud of being farmers; and many of them have added to their wealth, and gained distinctions more honorable than those of birth or title, by being authors of mechanical inventions and improvements. WASHINGTON likewise was a farmer, who gloried in his occupation. Yet among savages and dandies, and fools who are anxious to figure in high life, without manners or means, without wit, wealth or wisdom, contrary to the decrees of nature and the habits of nurture, rural occupations are thought degrading; and to cultivate the ground is considered as the bitterest punishment of poverty, or the last shift of unsuccessful knavery.

The following is a vivid, and probably faithful picture of that kind of pride which causes some aspiring characters

“Downwards to soar, and backwards to advance.”

It was taken from real life, as it exists, or lately existed in a neighboring Province. It is not a caricature, nor was it meant to be a likeness of any thing belonging to New England. If, then, any persons to whom we now take the liberty to exhibit it, should happen to perceive any similitude to their own features, or those of their friends, they may congratulate themselves on the resemblance, but may be assured that it is entirely accidental.

“When any of the farmers of Nova Scotia were so successful as to amass a little wealth, they were sure to escape from the plough and betake themselves to some other pursuit. The keeper of a tipping-house, the retailer of rum, sugar and tea, the travelling chapman, the constable of the district, were far more important personages, both in their own estimation and that of the public, than the farmer who cultivated his own lands. The farmer was thought to be of the lowest caste in society, and gave place to others, who, according to the European standard of rank and consequence, are confessedly his inferiors. This sense of degradation was perceptible among husbandmen themselves. Such of them as were under the necessity of working set about it with reluctance, and always under a mortifying sense of shame. They would blush to be caught at the plough by their genteeler acquaintance, as much as if surprised in the commission of crime: and if they saw them approaching, many of them would skulk from the field, and plunge into the neighboring thicket. The children were easily infected with this humbling sense of inferiority; and the labors of the farm were to the young men objects of aversion, as those of the dairy were to the young women. Hence the family were brought up with habits and feelings, inconsistent with their stations in life; and that respectable class of men, known in England, as the ancient yeomanry of the country, who were the owners and cultivators of their own lands,

had no footing in the Province. The profession of the farmer was considered as abject, low and debasing. The daughter of a farmer, the least above poverty, demeaned herself by milking a cow. The sons, again, made little other use of the horses than to ride to church or market, and instead of being accustomed to ploughing, drilling, reaping, composting, and such like operations, they crowded to the capitol, as clerks and shop-boys, and many of them turned smugglers. The plough was far from being accounted honorable, and the handling of it was deemed an act of self abasement."

Thus it is with mankind, the most preposterous of all beings. They glory in their shame, and are ashamed of their glory! We hope that the portraits we have exhibited, have no *fac similes* in the United States. That the offspring of New England farmers do not consider themselves as degraded by attention to the useful and honorable occupations of agriculture and rural economy. We have, however, seen the time when certain of the fair daughters of Columbia, were apparently more solicitous to make fine figures in a ball room than fine cheeses in a dairy room—would rather make pound cake for a tea party than an Indian pudding for a family dinner—would prefer spending the day in reading romances, visiting and receiving the visits of idle acquaintance to regulating the economy of the kitchen or pantry, mending or making their own apparel or that of their fathers or brethren. In short there once existed a sort of females, (now either extinct or out of fashion) who pored over nonsensical novels till they became so genteel, so indolent, so delicate, so romantic, so sentimental, so susceptible of every thing that is inexpressibly tender and exquisite beyond all conception—so very like the Cecelias, the Evelinas, the Docasinas and Cherubinas, whom they made their models, that they were as useless as butterflies, though as proud as peacocks! They considered themselves as too nice for the cares and duties of life; and if one of them was overpersuaded to marry a country suiter who cultivated the ground, she considered herself as no better matched than was the unlucky parrot in the fable, who formed a connubial union with an owl! I hope the ladies will pardon this sketch, when assured that there are probably none of this species of fallen angels now in being, at least in this part of creation. Time has been, also, when certain young men were so much superior to the Emperor of China, that they had rather tend a tavern bar than follow a breaking-up plough—would prefer figuring as dandy shop-boys with a hopeful prospect of being duly qualified for becoming broken merchants, to living respected and respectable, as lardy, independent, stout-bodied, strong minded yeomen, pillars of freedom, and capital columns in the social fabric. We speak of these things, however, merely by way of reminiscence—worthy to be noted among the memorabilia of former ages. Already, the wise and the worthy have set their faces against the ridiculous and pernicious pride to which we have adverted, and every good patriot stigmatizes such effeminacy, such meanness of spirit, such littleness of mind peeping from beneath the veil of pseudogentility, with his most pointed reprobation. This kind of false pride may now be numbered with the antiquated and exploded follies of the

hoop-petticoats and full bottomed periwigs of the belles and beaux of olden time.

II. Agriculture must be made profitable as well as honorable. Unless this can be effected, we may found societies, multiply premiums, and deliver addresses, world without end, still husbandry, like a beautiful young lady of great pretensions but small property will have more admirers than suitors, will be more toasted than followed. The profits of agriculture consist in the value of its products after deducting the expense of cultivation. The slight culture, which produces but small crops, is very expensive, and often ruinous. None but *rich men* can afford to be *poor farmers*. In most cases if a farmer can double his crop, although at a considerable extra expense of manure and tillage, he will treble or quadruple his profits. Thus, if by 20 dollars expense of tillage and manure, a cultivator can raise 40 bushels of Indian corn on an acre, worth 75 cents a bushel, his profits, setting aside rent, will be ten dollars. If by 30 dollars expense in cultivation, he can raise, on the same land, 80 bushels, his profits will be thirty dollars. Thus by doubling the amount of his crop, he trebles the amount of his profits. Besides, his land, by being well manured and well tilled, is left in better condition for future crops.

It will, perhaps, be urged, by some, that individual farmers will gain very little, if any thing, by that general increase of the products of the earth, which is said to be the result of new and improved methods of husbandry; because the less there is grown, the greater will be the price of produce. But here Commerce lends her aid to her elder sister Agriculture, and enables the farmer to realize a handsome equivalent for his surplus produce. Population, likewise, increases in an exact proportion to the increase of the means of subsistence. If the farmer finds provisions, mouths to consume it will not long be wanting. Besides, it is said that New England is destined to become a great manufacturing district. But this can never be, unless New England is great in agriculture. The plough and the loom must be next door neighbors, or neither of them can long be driven to advantage. Manufacturers will be induced to settle where provisions are cheapest, and they will not be comparatively cheap in New England, unless agriculture is prosecuted with uncommon skill, as well as with indefatigable industry.

Improvements in agriculture are becoming the order of the day in America, as well as in Europe. It will be ruinous to an individual farmer to fall greatly in the rear of his neighbors, who are rapidly advancing. Like a man in a crowd, which is pressing in one direction, if he stoops through indolence, or falls thro' weakness or inadvertence, he will run a great risque of being trodden under foot. A man may afford to raise but 25 bushels of Indian corn to an acre, when his neighbors and those who supply the market raise the same quantity. But if 50 bushels becomes the average crop, and he continues at 25, the prosperity of others will run him.

III. We come now to the last head, which we proposed to consider, to wit, the skill or science necessary to make a man a complete agriculturist.

The handy works of husbandry—the mere

manipulations, such as using the scythe, hoe, axe or spade, may, in early life, be easily learned. But dexterity in those processes, although a valuable acquisition, will no more make a man a farmer, than knowing how to handle a broad axe and chisel would constitute him an architect qualified to superintend the building of a palace or a temple. To be a finished farmer is to be a philosopher, a botanist, a chemist, besides possessing a talent for observation, and an ample fund of good sound, practical sense. Good sense, however, is of more consequence to the cultivator than any, or indeed than all the other before mentioned qualifications. Science without good sense will be apt to fill a man's head with visionary schemes, and urge him on to ruinous projects. Such a person will be liable to form an attachment to erroneous theories and injurious processes, merely because he can give what he calls good reasons for being wrong; and will ruin himself by rule, according to sound maxims laid down by good authors—not because the maxims are incorrect, but because our gentleman-farmer, with every kind of sense but common sense, abounding in that kind of knowledge which profiteth nothing, whose light of intellect is like that of a jack a' lantern, glimmering to betray, misapplies his rules to cases for which they never were designed, and to which they are altogether inapplicable. Good sense without science is preferable to science without good sense, but the union of both is necessary in order to produce the best effect of either.

As science without good sense will sometimes lead into great errors, so industry without skill is not only of little avail, but often injurious. A man may work hard, but if he does not "work it right," he may as well fold his hands with the sluggard and give care to the wind as go to bed with the whip-poor-will, rise with the lark, and toil with the emmet.

It may be asked, in what does this skill, which is the essence of farming, consist? To answer this question would be to give a complete treatise on agriculture and rural economy. By attempting to do this, I should at once exhaust your patience, and betray my own incapacity. But lest you should think that I am stepping altogether out of my sphere in attempting to address experienced cultivators on subjects of this kind, I beg leave to premise that I had the honor to be bred a farmer, and wrought on and superintended a farm till about twenty years of age. Since that period I have never lost sight of my original occupation, but have attempted to add to my knowledge, derived from experience, by reading, observation, and conversation with practical farmers, on subjects connected with their profession.

By undertaking to survey the whole field of agriculture I should not only be lost in its immensity, but, by running over more ground than I can cultivate, be guilty of an error which has often been censured in my practical brethren. I shall, therefore, for the remainder of this address, confine myself to some remarks on soil, a knowledge of which may be said (without a pun) to compose the *ground work* of agricultural improvement.

"Let every planter, with discretion meet,
The force and genius of each soil explore,
To what adapted, what it shuns averse;
Without this necessary care, in vain
He hopes an ample harvest."

There are but four kinds of earth which constitute the globe. These are Clay, Sand, Lime and Magnesia. Lime and magnesia are so far similar in their properties, that for my purpose, it may not be necessary to treat of them separately. Stones are composed of these earths in a concrete and hardened state. Gravel is either aluminous (or clayey) gravel, silicious (or sandy) gravel, calcareous (or limy) gravel, or a mixture of two or more of these. Loam and marl, likewise, are composed of different proportions of these two or three sorts of earth. Clay, sand and lime, together with vegetable and animal remains, and comparatively minute quantities of salts and acids compose the vast varieties of soils which are denominated good, bad, wet, dry, cold, warm, light, heavy, rich, poor, barren, fertile, &c. &c. Every soil is more or less defective in proportion to the scarcity or entire absence of one or more of these ingredients. Clay without sand, or sand without clay, and both of these without lime, are like a stool intended for a tripod, with but one or two legs, worth little or nothing till the missing part or parts are supplied. The addition of manure, when clay, sand and lime are not all present, and properly mixed, will prove of very little service, except so far as the manure may chance to contain the kind of earth wanted to complete the composition of the soil. Considerable latitude, however, may be allowed in the proportions in which these earths may be mingled. A soil, composed of three eighths clay, two eighths sand, and three eighths of finely divided lime stone, is very proper for wheat. Likewise, eight ninths of calcareous marl, which is a compound of clay and marl, and only one ninth of sand, will produce good wheat. Sir Humphrey Davy found that a soil, containing eleven parts out of twelve of sand, would yield tolerable crops of turnips. A greater proportion of sand, however, produced absolute barrenness. Clay and sand may be mixed in any proportion from one ninth to eleven twelfths. That is to say, a soil may consist of clay except a ninth part sand, or of sand except a twelfth part clay. These two extremes, so wide from each other, leave a vast intermediate space to be filled up; and this accounts for the almost infinite variety of loams, all productive, which are met with in our globe. Lime is required, but small quantities will answer. A soil, however, which does not contain a portion of lime has a defect, which can be remedied by no other substance.*

To apply these rules we will suppose a soil to consist of pure clay and it is necessary that it should contain at least one ninth part of sand. It will then be proper to spread sand over it one inch deep, and mix it well with the harrow or cultivator. This will give one ninth sand, provided the tillage be nine inches deep.—Again, if the soil be pure sand, and it is necessary that it be mixed with at least one twelfth part of clay, spread over your field one half inch of clay, and the culture may be carried to the depth of six inches, and your soil will be cured of its barrenness. The constitution of your soil being thus changed, you may feed it with manure with a certain prospect of benefit resulting.†

* See Letters of Agricola.

† The following mode of ascertaining the constituent parts of soils is from the "Letters of Agricola," and is recommended for its simplicity, and the facility with

Lime is not only a necessary ingredient in every soil, which is intended to produce a vigorous vegetation, but it is wanted to *compose a part of the substance* of certain plants, and *wheat is one of the number*. No plant can grow in a soil which is utterly destitute of the earthy ingredients which must constitute its substance. Lime then is as necessary to raise wheat, as it is to make lime mortar; and unless that substance or something like it is found native in the soil, it must be supplied by art, or wheat, and some other plants of which it composes a part, cannot be perfected.

My opinions on this subject do not rest upon abstract theory alone, but high authorities and facts indisputable and unequivocal can be produced to corroborate them. The author of Letters of Agricola says, "It is fact that lime is indispensable to the production of superior wheat crops. The rye lands of Herefordshire, which were reported by Dr. Beale in the year 1636, as incapable of producing wheat, have been so much fertilized by the subsequent introduction of this fossil manure as to be successfully applied to the growth of that and every other grain. This and similar effects may be referable in part to the subserviency of this

which it may be accomplished, without having recourse to costly materials or implements of analysis.

"In the field to be examined, take earth a little below the surface from four separate places, about one fourth of a pound, avoidupois, from each. Expose it to the sun, or before the fire, till it is completely dry; and turn it over frequently that it may be well mixed together. From the heap take exactly four ounces, and pass this through a fine sieve, which will allow all particles of sand and gravel to escape, but which will hold back stones, small fibrous roots, and decayed wood. Weigh the two parts separately, and take a note of each. The stones and other bulky materials are then to be examined apart from the roots and wood. If they are hard and rough to the touch, and scratch glass easily, they are silicious or flinty; if they are without much difficulty broken to pieces by the fingers, and can be scraped by a knife to powder, they are aluminous or clayey; or if when put in a wine glass and common vinegar poured upon them, small air bubbles ascend to the top of the liquid, they are calcareous. The finely divided matter which ran through the sieve, must next undergo the test of experiment. After being weighed, agitate the whole in water, till the earth be taken up from the bottom, and mechanically suspended, adding water till this effect be produced. Allow the mass then to settle for two or three minutes, and in that time the sandy particles shall have all sunk to the bottom. Pour off the water, which will then contain the clay in suspension, and the insoluble earth arising from animal and vegetable decomposition. The sand should first be attended to, and if from inspection, it be thought either silicious or calcareous in its nature the requisite tests may be instantly applied. By this time the mixture will have deposited at the bottom of the vessel the clay, and other earths, with the insoluble animal and vegetable matter. After pouring off the water, dry the sediment, and apply a strong heat by placing it on the bottom of a pot, ignited to redness, [heated red hot,] and the animal and vegetable matter will burn, and fly off in aeriform products. The remainder, lying in the bottom, will be found to consist of clay, magnesia or lime. To obtain accuracy, another one fourth pound of earth should be taken from the same heap, and the whole process gone over a second, a third, and even a fourth time, that the operator may rectify any blunders he had previously committed, and be satisfied as to the results of his experiment. He should provide himself with a pair of fine scales and a set of weights, divided at least into ounces and drachms. Although vinegar will detect lime by effervescence, it does not dissolve it so effectually as the nitric or muriatic acid, [aqua fortis, or spirits of sea salt] small quantities of which may be procured from the druggists at no great expense."

earth to the more perfect formation of the vegetable structure; for we know that birds, if confined to a cage, will lay eggs with soft shells. So wheat may labor under some analogous imperfection, unless the carbonate of lime comes within reach of its roots."

I might multiply authorities on this subject, but shall content myself with one more quotation from "Anderson's Recreations," a work held in high estimation in Europe.

"I had," says Dr. Anderson, "a field of good arable land, a mellow loam in Aberdeenshire, which had been long in culture, often dressed with animal and vegetable manures, and was of course endowed with a considerable degree of fertility; but being full of weeds it was subjected to a thorough summer fallow in order to get rid of these and bring it to proper tilth in other respects; and as lime is found to be an active manure in that district, it had a moderate dressing of lime put upon it, and some dung at the same time. The whole field was sown with wheat at the proper season, which sprang up equally thick on every part of it. For some time no difference was perceivable in the appearance of the crop over the whole; but by and bye, it was observed that the wheat on a small portion of the field, which by accident had not had any lime put upon it, became pale and sickly. While the crop in other parts of the field advanced luxuriantly, it dwindled in this particular patch more and more, till towards the beginning of May, the whole had died quite out, and not one stalk of wheat was to be found upon it, though the weeds in consequence of the richness of the soil at that time grew there with extreme luxuriance. Perhaps the proportion of calcareous matter did not, in this case amount to more than one thousandth part of the whole, yet the qualities of the soil were thereby totally altered, inasmuch that though before the application of that dressing, the soil was incapable of producing wheat at all, it was found at all times after that period well adapted for the raising of this crop. Nature has formed many soils with a similar proportion of calcareous matter, blended imperceptibly in them, over large districts of land."*

By this article it appears that small quantities of lime will produce a permanently beneficial effect, if applied to land which is destitute of that kind of earth. A quantity equal to one thousandth part of the whole mould within reach of the roots of the plants commonly cultivated would not be a dear dressing even in Massachusetts, where lime is not remarkably cheap nor very plenty, yet that small quantity was found by Dr. Anderson, to be sufficient to effect a permanent change in the constitution of a certain soil, and enable it to produce good wheat, although previous to its application it would not ripen a single stalk. Larger quantities, however, would probably be beneficial. English farmers apply from 60 to 400 bushels of lime to an acre, as it measures when fresh from the kiln.

It may perhaps be asked, why new lands, or lands recently cleared from their native woods will at first produce good crops of wheat, but after having been cropped for a series of years, although made rich with manure, will lose the faculty of producing that vegetable? To this

* Anderson's Recreations, Vol. 1. p. 16.

it may be answered that, perhaps, the soil originally contained small quantities of lime, which became exhausted by tillage, and perhaps the ashes, which were left on the land in burning the timber, for clearing it, might furnish a substitute for lime, by yielding potash, a substance in many respects analogous to the alkaline earths.

I do not, however, mean to assert positively that Massachusetts can be made a wheat country merely by the use of lime as manure for wheat. Perhaps rust, or mildew, (for which by the way it is believed salt is an efficient remedy,) may prevent its being cultivated to advantage. It is possible likewise that the Hessian fly may destroy it, though, I am told that there are remedies against the ravages of that insect, and that some kinds of wheat are not liable to be injured by it. But I am very confident that wheat cannot be raised to advantage on most of the old lands of New England *without* the application of lime to the soil. Whether it can be profitably raised *with* such application can only be ascertained by actual and repeated experiments.

It is not in wheat crops alone that lime is found eminently useful. It is observed by Sir John Sinclair that "By lime spread upon a moory soil, good herbage is produced where nothing but heath and unpalatable grasses were before. By the same means grass-land, instead of yielding nothing but bent, and other inferior grasses, have been covered with those of a more valuable description. The utility of lime to turnips is so great, that though in the same field where no lime had been applied the crop died away; yet in the limed part, the turnips flourished with unabated vigour. The same writer mentions lands, in which manure previous to liming had no sensible effect; but after liming operated as on other lands.

A very great advantage in the use of lime consists in its tendency to pulverize, and make mellow strong clayey lands. That quality alone, by the saving of labour, and the more perfect division of the particles of the soil renders lime of very great value for hard lands. Quick lime, in powder, and probably lime water, applied by an apparatus similar to that made use of for watering dry and dusty streets would, undoubtedly be an effectual antidote against worms and other insects, which of late years appear to gain ground upon us in New England. And even when perfectly slack and effete, if laid about the roots of the apple trees it is said to preserve them against the canker worm. Lime should be laid on the surface and intimately mixed with the soil, for this purpose it is best slacked, and brought to a very fine dust, and the land should be made very mellow. It should be hot from the kiln when it is wished to dissolve peaty or woody substances. But in most other cases it is not material whether it is used as quick lime, air slacked, or pounded lime stone. Quick lime should not be applied to growing plants, as it will cause them to turn yellow, and if dissolved in water will kill grass if poured upon it. But quick lime applied to the naked ground soon becomes mild, and of course will not injure seeds sown some little time after its application, nor the young plants which such seeds may produce.* Too much lime is, in all cases, per-

nicious, and any quantity, great or small, is useless in exhausted land, unless it is accompanied or succeeded by other substances which will furnish food for vegetation.

If lime be so eminently useful and even indispensable in certain soils, and for the production of some of our most valuable crops, and more especially if its want alone prevents New England from being a wheat country, its value I believe has not, generally, been properly appreciated by New England Farmers. No American writer on agriculture, so far as I can learn, considers lime as a necessary constituent of every productive soil. It is mentioned as useful, but not as absolutely necessary for the production of any particular kinds of vegetables. And they do not appear to have known or reflected that "all soils are improved by mild lime, and ultimately by quick lime, which do not effervesce with acids;"* that is, that have not lime already as one of their constituent parts.

What I have said of lime, will, in most instances, apply to sea sand, shells, either of fresh or salt water origin, or marl; likewise in a degree to leached ashes, or any other substance, composed in part of calcareous matter. All these have more or less the properties of mild lime, and therefore may well be made its substitute.

But I fear that my respected audience are, by this time, convinced that quick lime is a *dry subject*; and though I hope its discussion may prove profitable to many, yet as there can be no particular pleasure in *handling it*, I will no longer detain my hearers from the avocations of the day, and the amusements of the Farmers' Festival and the Manufacturers' Holiday.

quantity be given to land, and properly mixed with the soil, it is a thing of much less moment than we are apt to imagine whether it be applied in its caustic or mild state, and for this reason that there is a natural progression from one to the other, and in the end it is sure to be saturated with its full measure of carbonic acid.

Letters of Agricola.

* Sir Humphrey Davy's Agricultural Chemistry.

CATTLE SHOWS.

We should be glad to give particular, minute and official accounts of the "Husbandman's Holidays," throughout the United States, if our limits would permit. But, to publish them at length, as they are given in the newspapers of the district in which they have taken place, would be to devote the whole of our paper for several weeks to details which are already in possession of many of our readers. We shall, therefore, give an abridged notice of each exhibition of which an account has reached us, and should we omit any thing of much importance, either as affording precepts or examples to our agricultural readers, we should be happy, hereafter, to give such *supplementary* notices as any of our correspondents may suggest as expedient.

CHESHIRE, (N. H.) CATTLE SHOW.

At Acworth, on the 2d day of October inst. in pursuance of previous notice, was held the annual meeting of the Cheshire Agricultural Society, and under its superintendence, the annual Exhibition of Stock and Domestic Manufactures, for the County of Cheshire.—The day was favorable. The occasion called together a numerous collection of the substantial citizens of

the County. At an early hour the Stock entered for premiums was arranged in the pens, and the Manufactures deposited in a room provided for their reception.

The Society convened at 9.—The examining committees attended to their duties from 10 to 12. The drawing match under the direction of the committee for awarding premiums on working oxen, was attended at eleven. The display of the power of the ox which this trial of strength elicited was witnessed with much satisfaction. The pairs to which the first and second premiums were awarded, their age and size considered, were decidedly superior to any on the ground.

At 12 o'clock a procession was formed at the house of Mr. Keyes which under the direction of the marshals of the day, Mr. Warner and Mr. Gove, moved to the meeting-house. The services were commenced by a prayer from the Rev. Mr. Cooke. An instructive and highly interesting Address adapted to the occasion, was delivered by the Hon. S. HALE. This address will probably be given to the public; an analysis of it will not therefore be attempted. The prominent subjects were the prejudices, existing against Agricultural Societies—a refutation of the objections which have been urged—remarks upon the policy of draining lands—upon the mode of increasing and applying manures, &c.—The reports of the committees on manufactures and on working oxen were then read by H. Hubbard, Esq., and the remaining reports of the committees at the house of Mr. Keyes, after the return of the procession. The services of the day were very pleasantly concluded by a liberal and well provided dinner.

The following reports were received from the Awarding Committees.

On Working Oxen.

The committee consisting of Col. David Parker of Charlestown, Chairman, Samuel Russell, of Swanzy and Mr. Joel Goss, of Claremont, awarded—

To Lemuel Towne of Stoddard for the best pair of working oxen, the first premium on oxen between 4 and 8 years old	\$6
To Bemzla Cram of Unity for the 2d do. the 2d premium,	4
To Samuel Clark of Acworth, for the next best do.	2

The committee noticed a number of other pairs presented as being very fine cattle, particularly a pair exhibited by John Robbins of Alstead, which were brought on to the ground too late to be entered. They expressed their belief, that but for this omission Mr. Robbins would have been entitled to one of the premiums offered by the Society, and recommended that he receive a premium of one dollar out of the fund reserved to be appropriated at the discretion of the Executive committee. The recommendation was complied with.

On Steers and Heifers.

The Committee consisting of Isaac Hubbard of Claremont, Chairman, Aaron Hodskins, Esq. of Walpole, and Mr. Thos. Whipple of Charlestown, adjudged—

To Royal Rounceval, of Unity, for the best pair of steers the 1st premium on steers	4
To James Dickey of Acworth, for the next best do. the 2d premium	2
To Samuel Tutherly of Unity for the best heifer, the first premium on heifers	4
To Aaron Dean, of Charlestown, for the next best do. the 2d premium	2

In addition to those above to which premiums

* The application of lime is matter neither of mystery nor of deep philosophical research. If the necessary

were awarded, the committee favorably noticed fine pairs of three year old, and 2 pairs of one year old steers, presented by Mr. Frederic Stebbins of Acworth, and also several yoke of steers presented by Nathaniel Grout of Acworth, and Mr. Stephen Glidden of Unity—also a fine 2 year old heifer by Mr. Charles Bowen of Charlestown, and 2 two years old, and a yearling heifer, by Mr. Aaron Dean of Charlestown.

On Bulls and Cows.

The Committee consisting of Mr. Roswell Hunt of Charlestown, Chairman, Phillip Sweetser, Esq. of Marlborough and Silas Angier, Esq. of Keene, report—

That Aaron Hodskins of Walpole for the best bull, weighing 1211 lbs. at 20 months, is entitled to the first premium on bulls

That James Bingham of Lempster for the 2d best do. is entitled to the 2d premium

That Timothy Holden of Charlestown is entitled to the 3d premium for the next best do.

This committee observed that a bull presented by Mr. Matthewson of Acworth, and one by Daniel Breed of Unity—several young bulls less than a year old, from the stock of the bull owned by Samuel Tutherly of Unity, to which a premium was awarded at a previous exhibition, and from Mr. Walker's bull of Charlestown, merited the particular notice of the society, as being very superior animals, and as indicating an increased attention among our farmers to the improvement of their stock. They awarded no premiums on Cows—none having been entered, in their opinion, deserving.

On Sheep and Swine.

The Committee consisting of Stephen Johnson, Esq. of Walpole, Chairman, Mr. William Jennison, of Walpole and ———, reported—

To Uzzel Hurd of Lempster, the first premium on hogs

To Rufus Brigham of Acworth for the two best pigs

To Adam Wallace for the next best

To Samuel Findlay of Acworth, the premium for the best Merino buck

To Josiah White of Charlestown, for the 4 best Merino ewes

On Domestic Woollen Manufactures.

The committee consisting of Th. C. Drew, Esq. Chairman, and Martin Butterfield of Walpole, and James Bingham, Esq. of Lempster, report—

To Mrs. Sally White of Charlestown the first premium on fulled cloth

To Samuel Findlay of Acworth, for the best piece of flannel the first premium

To Abner Chase of Lempster for the next best do.

To Samuel Slade of Acworth, for the best pair of woolen blankets

To Thomas Whipple of Charlestown, for the best woolen coverlet

To Samuel Findlay of Acworth for the best piece of kerseymere

The committee recommended a premium of fifty cents to Larissa Miner, of Lempster, for an excellent pair of woollen hose, and remarked that they would gladly have assigned a premium to Dudley Lewis, of Marlow, for a pair of cotton and woollen coverlets, had any have been offered by the Society upon that article of Manufacture.

On Cotton and Linen Manufactures, and Straw Bonnets.

Mr. Vryling Lovell of Charlestown, Chairman, James H. Bingham, Esq. of Alstead, and Mr. George H. Ingersoll of Charlestown, the committee, adjudged—

To Miss Peggy Mc Clure of Acworth, the first premium on Linen

To Martha Duncan of Acworth the 2d do.

To Jane Rob of Acworth, for the best piece of linen diaper, the 1st premium

To Lydia Thayer of Acworth, for the next best do. the 2d premium

To Selina Parker of Fitzwilliam, for the best grass bonnet, the 1st premium

To Nancy Fletcher of Alstead, for the next best do.

To Betsey Ruggles of Walpole, for the 6 best straw bonnets

This committee remarked that Miss Peggy McClure would have been entitled to the 2d premium on linen had the piece she presented contained a sufficient number of yards. That various specimens of linen thread were presented which were very creditable to the manufacturers, particularly a bunch by Miss Peggy Mc Clure, and a bunch by Mrs. Slader.

A few articles besides those noticed above, for which no premiums had been offered, were presented for examination. Among these were an improved plough by Mr. David Farasworth, of Washington,—and an improved shearing machine by Mr. Parks, of Acworth.—The executive committee esteemed the improvements valuable and recommended them to the notice of the public.

As a whole the exhibition was gratifying to the friends of the institution and creditable to the County. The anticipations of all, so far as they related to the numbers assembled, to the variety and quality of the Stock and Manufactures exhibited, may with truth be said to have been more than answered. The zeal and interest with which all engaged in the business of the day—the very considerable number of fine animals presented—the obvious improvement in the young stock—the taste and ingenuity displayed in the Domestic Manufactures, all combined to evince that the Society has exerted a highly beneficial influence upon the agricultural interests of the County.

If with the limited patronage it has thus far received it has been productive of so much benefit, how much greater may be expected to be derived from it when patronized to the extent which the intelligence, population and resources of the County would warrant.

For the next anniversary the funds of the Society, it is expected, will justify the offer in premiums of a much larger amount, embracing a greater variety of objects, than was offered for the past. If so it is hoped that a corresponding competition will be excited and that the result will be honorable to the County of Cheshire.

THOMAS M. EDWARDS,

for the publishing Committee.

BERKSHIRE CATTLE SHOW.

The 12th anniversary of the Berkshire Agricultural Society was holden on the 2d and 3d inst. The first day was occupied in the exhibition of Cattle, Sheep, Horses, Swine, Domestic Manufactures, Agricultural Implements, and in organizing the Committees for awarding premiums.

On the second day the exhibition of the Ploughing Match took place in the morning. This was succeeded by sacred and literary exercises—a prayer by the Rev. Mr. Humphrey, and “an appropriate, useful and able Address, by Maj. McKay,” which is expected soon to appear in print.

The declaration of premiums was announced by the first Vice President, Hon. H. W. Dwight, “preceded by some suitable and elegant comments.” The Society sat down to an excellent dinner at Capt. Campbell's. “The weather was fine, and it is worthy of remark, that in this particular Providence has smiled on this society at every anniversary since its formation.” “The quantity of domestic manufactures was much increased, and the quality much improved, and such as justly distinguished the Ladies of Berkshire for their ingenuity and industry.” The number of animals was not so large, but in quality they were superior to those which have been exhibited at former anniversaries. “The number and excellence of the Merino Sheep were worthy of particular comment—in which it is believed the County of Berkshire is not exceeded by any other county in the U. States.”

The following is extracted from the Report of the Committee appointed to award premiums upon Live Animals.

“Twelve years only have elapsed since the first exhibition of animals was made in Berkshire, under the name of a Cattle Show; since that time, it is plain and obvious that our breed of cattle has been much improved; and the young stock exhibited at this time is much superior to the old.

“It is a fact well attested, that not more than forty years since, the animals raised in Great Britain were much inferior to those now raised in this country, and that for a century previous, very little improvement had been made in their beauty and size. About that time associations were formed by the most wealthy and respectable farmers, Cattle Shows were held, and premiums given for the best animals offered. The effect produced is obvious to any one, who has examined the Cattle imported from that country.

As evidence of the truth of this, we refer you to the two beautiful Heifers of the Devonshire breed, exhibited by our first Vice-President; and although purchased at what may, by some, be considered a high price, still we presume the speculation may be a profitable one to the enterprising owner. It is extremely desirable that the most wealthy and opulent farmers in Berkshire may duly appreciate the advantages that may accrue, not only to themselves, but to the whole community, from similar exertions. It is within the recollection of many gentlemen in this vicinity, that great improvement was made in our breed of cattle by the introduction of the Cox, or short horned breed. The Sack-et breed, so called, which originated from this stock, are to be preferred to any of the original stock of the country. Although purchasing imported cattle may be the most expeditious way to improve our stock, still we do not believe it to be the cheapest way, for we believe the native stock of our country may be made superior to those we now import. This, however, must be a work of time to effect. Is it not for the interest of every farmer to begin this work? The small farmer can aid in it as well as the large one. Keep no more stock than you can keep well. Select your best Cows to breed from. Take the same pains with respect to the breed on the other side. If you have more calves than you choose to raise, do not kill the largest and best of them, as is generally the practice, because they will bring a few cents more than the others. Nurse your calves care-

fully during the first years growth. Unless you lay the foundation for good cattle during that time, you will never obtain the object wished for."—*Abridged from the Pittsfield Sun.*

The Plymouth County Agricultural Society

Held their annual exhibition at South Bridgewater, on the 8th inst. An Address was delivered by Dr. Hector Orr. "Dr. Orr referred to the circumstances in the history of the Old Colony, which had been unfavorable to the due improvement of its agriculture—adverted to some erroneous opinions, and existing defects in their husbandry—and characterized the loose and indolent habits, that originated in most cases the propensity to emigration, by strokes of skilful and well merited sarcasm."

"The exhibition of stock was superior to the last year. The Bulls, particularly that which obtained the premium, and one belonging to Gen. Washburn, furnished an assurance of still farther improvement. The Manufactures, though limited in quantity and variety, would not in their quality dishonor any exhibition in the state. The ladies Bonnets, made of rye straw, the thread and worsted Hose and the braid hearth rug were noticed and admired. The Cloths from the several Factories were spoken of in terms of commendation. The Ploughing Match was engaged in with a zeal and emulation, that proved the Agricultural community had received a stimulus from the exertions of the society."

Abridged from the Old Col. Memorial.

The Hartford County Agricultural Society

Held their fifth anniversary at the City of Hartford, on the 9th and 10th of Oct. The exhibition was superior to any which preceded it. The Bulls, Cows and Working Oxen are spoken of in terms of high commendation in the Connecticut Courant. Twenty-eight premiums were awarded. With regard to Domestic Manufactures, the Courant observes, "Here was a display, which, when compared with that of last year, was flattering to the prospects of the Society. The articles offered for premiums were greater in number, and by far superior in quality, to those offered the last year." Among the specimens are mentioned "several pieces of blue woollen cloth, which, though spun, wove and dyed in families, were scarcely inferior to the best factory goods. Mixed cloth, fine flannels, carpeting, stockings, hearth rugs, linen diapers and woollen blankets of fine quality were also exhibited."

Twenty-four premiums were awarded by the Committee of Manufactures. There was exhibited a hat made of mole skin, in imitation of *Chinchilli*, which indicated much ingenuity. Also, two cassimere shawls, which were considered worthy of particular notice, as being the first of the kind offered. These three articles were presented by Miss Susan H. Hubbard, of Windsor, and for which the Society awarded her an extra premium. A Stand and Card Table by Mr. Daniel Dewey; a Sofa by Messrs. Foster & Shepherd; beautiful ladies' Combs by Mr. Levi S. Platt; a fruit piece, painted by Mr. Laughton; a Threshing Machine, invented by Mr. James Gregg, of New Hampshire, are likewise mentioned in favorable terms.

The public exercises were, a Prayer by the Rev. Dr. Flint, and an able and instructive Ad-

dress by the Hon. Timothy Pitkin, President of the Society, on the objects of the institution.

The Society has a Viewing Committee, who award premiums for the best cultivated farms. This committee gave favorable reports of the farms of Mr. Lemuel Roberts, in Windsor; Mr. Frederic Oakes, in W. Hartford; Daniel Wadsworth, Esq. and a Mr. Raphael, of Hartford. The premium for the best cultivated farm, being a silver cup, to the value of \$40, was awarded to Daniel Wadsworth, Esq. and that of the second best, being a silver cup to the value of \$20, to Mr. Frederic Oakes, both of Hartford.

TO THE EDITOR OF THE NEW ENGLAND FARMER.

SIR—Being of your opinion "that it is the duty of every man possessing any information tending to advance the agricultural interests of his country, to lay such (however inelegantly communicated,) before his fellow citizens," I deem it not amiss to send you my opinion. (founded on some experience,) respecting the time most suitable for cutting English Grain, which in New England, as far as my knowledge extends, is permitted to stand in the field two or three weeks later than good husbandry demands.

European writers, I believe, are unanimous in the opinion, that when the *milky* substance has passed from that state into *flour*, the sooner the grain is cut the better, as all after this, if permitted to stand, is taking value from the straw, and adding to the berry or kernel, what? a thick, dark and bitter skin! thereby rendering the bread made from such grain dark, clammy, and unsavory to the taste, if not unhealthy to the stomach.

From an experience of several years in cutting my grain as above recommended, I consider its value to have been enhanced one quarter part, as the grain is not only more *white* and *sweet*, but the straw is likewise of double the value for fodder of that cut late, when the grain is dead ripe. I can with confidence assure my friends of the *plough*, that if they will cut their grain early, (*viz.* when the kernel is tough and spongy, and feels like India rubber) they will sustain no loss from shrinkage, as grain after it has arrived at this state, can receive no more nourishment from mother-earth; that the excellence of the straw will doubly compensate them for the trouble of haying it after it is cut; that instead of dark bitter rye, they may have that, which in point of color and sweetness, may vie with the late cut wheat.

Plaster of Paris.—Three years since I used one ton of Plaster of Paris, one barrel of which was sown on mowing on the top of a heavy swell of land, which to appearance had little or no effect, till the present summer, when the land was broken up, and the sward, in true Brighton style, turned bottom up, for a crop of English turnips. The weather which followed the sowing was unfavorable for this vegetable, but to my surprise I discovered that, where the plaster had been sown, three years before, the turnip plants were vigorous and thrifty; each side of which the drought had destroyed them almost to a plant! At this time, (Oct. 1st) the turnips on the *favorable spot* are the size of a coffee cup!

Now, Mr. Editor, this same Plaster of Paris, (or capricious Gypsum, or whatever other term it may have) has caused the gentlemen of the

plough handles more puzzle as it respects it acting as an auxiliary to forward vegetation than almost all the rest of our unaccountable put together. A friend of mine, Dr. W**** having purchased a large plantation on the Hudson river, N. Y. had, he informed me, made use of many tons of this article, to very great advantage, and is of the opinion, that it acts more by *fermentation* within the earth, (thereby preparing food proper for plants in a greater degree) than by its agency in *attracting* nitre or any other property contained in the atmosphere. My turnips give evidence to such an opinion.

The above remarks on Gypsum are not made so much with a view of their enlightening any one, as of eliciting observations from more experienced heads and abler pens. With the apology, that many who can hold a plough to admiration, make but a bungling job in wielding the pen, I shall subscribe myself your humble servant,

A YOUNG FARMER,
Of the heart of Massachusetts.

Oct. 1, 1822.

From the London Farmers' Journal.

RECIPT FOR MAKING GREEN GRAPE WINE.

Lewisham Nursery, Oct. 7, 1821.

SIR—Having for a number of years been very fortunate in making British Wines, I herewith send you a receipt for making Green Grape Wines, which is particularly applicable this late season, as there are many farmers, and others in the country, who have large quantities of grape that will not ripen, and which they will find, by making use of them in this way, will turn to a very good account. Care must be taken to have the casks, bottles, &c. very sweet and clean, and I have no hesitation in pronouncing this the finest British wine that can be made.

I am, Sir, your obedient servant.

JOHN WILLMOTT.

To make Champagne from Grapes equal to foreign

Gather the Grapes when they are just turning or about half ripe; pound them in a tub, and to every quart of berries so pounded, put two quarts of water: let it stand in a mash tub, for 14 days when it is to be drawn off; and to every gallon of liquor put three pounds of lump sugar when dissolved, cask it, and after working, bung it down. In about six months it will be fit to drink, when it should be bottled and tied down, or wired, if it is intended to be kept more than one year.

An awful instance of sudden death occurred a few days since near Worthing. A gentleman of the name of Home, having occasion to paint his house, incautiously remained in it, contrary to the advice of his friends, during the time the men were employed. On the fourth day he was seized with vomitings, and complained of a giddiness in the head. A physician was immediately sent for, but before he could arrive, the unfortunate man was senseless. Every means which medical skill could devise were tried for his recovery, but without effect. He has left a wife and two children to lament his untimely death.

Ibid.

Important!—His Majesty, says an Edinburgh paper, landed at Leith, on a large piece of mahogany, which is intended to be cut up, and made into snuff boxes!

N. E. FARMER.

BOSTON.—SATURDAY, OCT. 19, 1822.

We have omitted giving, in the present paper, any further notice of the Brighton Cattle Show, because we supposed it might be more acceptable to many of our readers to include the official reports of all the different Committees in the same number. We could not give them entire in the present number, and therefore have deferred their commencement to our next, which will include the whole.

Mistake Corrected.—In our last paper it was stated, (p. 86, col. 1, near the bottom) that "Mr. S. Jaques, of Leicester, received a premium of \$50, for a breed of long woolled sheep, 6 ewes and 1 lamb." It should have been Samuel Jaques, Esq. of Charlestown, who was the owner of the animals. The mistake was copied from the Daily Advertiser.

FOREIGN.

London papers to the 14th Sept. have been received at New York. Mr. Canning has been appointed Minister of Foreign Affairs. The state of Spain has become more tranquil, and the new ministry is said to be popular.

The Greeks are gaining ground of the Turks. One of the Turkish Pachas was defeated on the 20th July. The account adds, that threatened by the Divan, he assembled all his reserves, and led them to the theatre of his defeat; but the Greeks again intercepted him, and on the first of August he lost as many lives as on the 20th of July, and was himself taken prisoner.

DOMESTIC.

Gale of Wind.—The papers are replete with accounts of a severe gale experienced in the Southern States on the 27th and 28th ult. At Danville and Lynchburgh, in Virginia, it commenced about half past 1 o'clock in the morning of the 28th. It was very severely felt in the destruction of buildings, orchards, &c. Fifteen houses on Sullivan's Island, near Charleston, were blown down. Upwards of one hundred dwellings in the city of Charleston have been unroofed, and about one thousand have been rendered pervious to the rain, by the loss of tiles or slating. Among the public buildings the City Hall has been considerably injured. Not one place of public worship escaped. The theatre was unslated and otherwise injured. About 35 persons lost their lives in Charleston and on Sullivan's Island.

At Georgetown, S. C. we are informed the gale was still more severe than at Charleston. The house of Dr. Meyers was swept off by the flood, and his whole household, fifteen in number, including his wife, three daughters and a son, were drowned. The dwelling use of Mr. R. F. Withers, a large new building, and very out building were also destroyed, and fourteen out of eighteen persons lost their lives. Fifty lives were lost at or near Georgetown.

The Cattle Show and Fair of the Hampshire, Franklin and Hampden Agricultural Society will be held at Northampton on Wednesday and Thursday of next week. Address by JOHN MILLS, Esq. of Southwick. There will be a Concert of Sacred Music in the evening of the first day.

The imitation Leghorn Bonnet manufactured in Vermont, and which was considered superior to any previously made in this country, was sold at Brighton, on the second day of the Show, for eighty dollars.

Two winter squashes were raised in the garden of George Olney, Esq. this season, of the following dimensions and weight:—First squash, length 39 inches; greatest circumference 34 1-2; smallest do. 27; length of neck 29; average circumference of neck 29; weight 1 1-4 pounds. Second squash, greatest circumference 1 1-2 inches; smallest do. 21; length 37; length of neck 26; average size of neck 26; weight 53 1-4 lbs. A cucumber was also raised in the same garden, 18 inches long, and 10 inches in circumference at the largest part.—*Providence Gazette.*

Manufactory of Waltham.—The deficiency of rain during the present season has caused great injury to the profits of a large manufacturing establishment in this vicinity. The *Waltham Factory*, which employs between 7 and 8000 spindles, has been deprived of more than half its water power by the drought; and this circumstance has materially diminished the dividend of the Stockholders. On Tuesday last, the semi-annual dividend was paid, amounting only to 12 1-2 per cent.; whilst, last season, the profits were 30 per cent. per annum.

Imitations of the Waltham Cotton have been sent from England to this country, for sale; but the English manufacturer cannot make an equal fabric at the same price. The imitation is thickened with flour, to give it the appearance of firmness.

Worcester Canal.—The surveys for the projected Canal, from Worcester to this place, have at last been completed in a manner very satisfactory to the Committee. The descent from Worcester to this place is, as we lately stated, a few feet more than 450. The ground was bored every twelve rods, the whole distance. On the route selected, no rock was found, within the depth for excavation, excepting at three places, where it rose above the surface. The gentleman employed as Engineer, in this survey, whose experience and judgment may be fully relied on, estimates the expense of the whole work, including sixty locks, at \$323,000. He thinks, that locks of six and eight feet each are preferable to those of higher lift, as they may be constructed at a smaller proportionable expense.

These facts enable us to repeat, with much confidence, the opinion which we gave, some time ago, that the stock of the Canal will be more profitable than that of any description of public debt, bank stock, or even manufacturing establishments.—*Procr. Journal.*

The beautiful river which runs through Ipswich, and which is never dried up by the severest droughts, is destined soon, we understand, to become the busy seat of manufactures, a monied association from the capital having purchased a right upon the stream for that purpose. Ipswich has long been spoken of as a future manufacturing place.—*Salem Gaz.*

United States Law Journal.—It was mentioned in the Statesman, a few evenings since, that the second number of this work had made its appearance. We have since had an opportunity of perusing its contents, and do not hesitate to pronounce it a highly interesting and valuable publication. In the compass of 360 compact octavo pages, is presented a body of information on legal subjects, and great national questions connected with our Judicial institutions, which cannot be conveniently derived from other sources, and which cannot fail to commend the work to a numerous class of readers, particularly to gentlemen of the bar, legislators and jurists. The second number is in all respects superior to the first; and if the independence and spirit, the talent and taste, evinced at the outset, shall continue, the Law Journal must soon assume the character of a standard work, and reflect credit upon the jurisprudence of our country.—*N. Y. Statesman.*

Sickness in Pennsylvania.—Letters from Philadelphia give a deplorable picture of the ravages which have been committed this season, in the vicinity of that city, by bilious and intermittent fevers. One physician at Moorstown, N. J. nine miles from Philadelphia, is stated to have 120 patients now under his charge; and in many families, on the banks of the Delaware and Schuylkill, not a sufficient number of healthy persons remain to attend the sick. The Democratic Press notices six deaths in Montgomery township, and remarks, that it seldom happens in a township of less than a thousand, so many die within a few days of each other; and it is still less seldom, that six old neighbors should die, whose united ages should amount to 455.—*N. Y. Spectator.*

M. Durad, manager of the repository of inventions at Paris, has invented an instrument of a novel and elegant description, which he calls *cuille-main*, and with which roses and fruit may be gathered from thorny trees without any injury to the hand; it is like a pistol.—*London paper.*

Mines of North Carolina.—We continue to hear of the discovery which has lately been made, of gold and silver mines in Lincoln County, (N. C.) Some incredulous persons seem to have attempted to turn the matter into ridicule; but the actual exhibition of the precious metal itself, has silenced them; and it is now acknowledged that a bar of silver, and a lump of gold, as large as a man's thumb, have been extracted from part of the ore, which is found in abundance on four or five plantations. A ridge, more than a quarter of a mile in length, is supposed to be full of this valuable substance.—*N. Y. Spectator.*

DIED.—At Slough, near Windsor, in England, Aug. 25th, Sir WILLIAM HERSCHELL, aged 86, one of the most celebrated Astronomers of the age.

In Bangor, Me. Hon. LOTHROP LEWIS, aged 58—one of the most eminent Geographers and Mathematicians of New England. At his death he was one of the Commissioners of Maine for dividing the Massachusetts and Maine Public Lands.

U. S. LAW JOURNAL, No. 2.

EDITED BY SEVERAL MEMBERS OF THE BAR.

THE 2d No. of the "*Law Journal and Civilian's Magazine*," is just published by

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Admiralty Law—Mariners' Wages,
Rand & als. vs. Ship Hercules,
Williams vs. Brigantine Juno, &c.

Decision of Judge Livingston in the case of the U. States vs. Jacob Barker.

Examination of Cases argued and determined in the Supreme Court of Judicature of the State of N. York, in the terms of May, August and October, 1821, and January, 1822.

Remarks on the Resolution of Mr. Stevenson, of Virginia, for the repeal of the 25th section of the Judiciary Act of the United States.

Review of the case of the Jeune Eugenie, determined in the Circuit Court of the United States, held at Boston, December, 1821.

Penal Jurisprudence—Review of a Report made to the General Assembly of the State of Louisiana, on the plan of a Penal Code for said State; by Edward Livingston.

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Law of Corporations—Opinion of Chancellor Kent and of Judge Spencer, in the case of the North River Bank.

Law of Corporations—Remarks on the case of the Corporation, styled, "The Trustees of the Roman Catholic Society worshipping at the Church of St. Mary, in the city of Philadelphia;" by Richard H. Bayard.

A Digest of all the late British and American Reports, which are not included in the present British or American Digests, is preparing for the third Number of this work.

The 2d No. completes 300 pages, or half the first volume. Subscribers are respectfully reminded, that the terms of the work are \$5 the volume, payable on the receipt of the 2d No. of each; or \$6, if paid at the close of each volume. October 7, 1822.

THE FARMER'S ALMANACK.

RICHARDSON & LORD, 75 Cornhill, have This Day published, the old fashioned, genuine FARMER'S ALMANACK, for the year of our Lord, 1823, by ROBERT B. THOMAS, Esq.

Booksellers and Traders, supplied by the quantity, as usual. October 7.

WANTED IMMEDIATELY,

A N active, intelligent Boy, 15 or 16 years of age, as an Apprentice to the Printing business. Inquire at the Farmer Office. Oct. 19.

From the Columbian Centinel.

HUSBANDMAN'S HOLIDAY.

Again, on the wing of old time, has come round,
The husbandman's holiday—cloudless and bright;
Our spirits still buoyant, and bosoms still sound,

With smiles let us welcome its pathway of light:
Then hail! to our jubilee, glory and pride,
When we lay by the Plough—cast the sickle aside,
Nor envy the fame

Of the warrior's name,
Encircled with garlands, in victory dyed.

God of Seasons! to thee shall our praises ascend,
To thee, the first fruit of our harvest shall flow,
Hallowed strains with the smiles of festivity blend,
And gratitude warm in our bosoms shall glow:
In this clime of the West, shall thy altars be reared,
Thy name and thy glory be loved and revered,
And oft we will raise

The loud anthem of praise,
For a country and home by thy blessings endeared.

Let others exult in their prowess or might,
Or in sky piercing Temples which slavery gilds;
The brightness of Despots is sinking in night,

And crumbling the monument Tyranny builds;
For a season, Ambition may dwell in its bower,
And crime every vestige of greatness devour,

But soon from on high,
With an Eagle-trained eye,
Retribution and justice shall vengefully lower.

Italia and Greece! with a climate as mild
As your vile pampered sons are degenerate and base,
On you awful wisdom and science first smiled.

And learning was fostered within your embrace;
But now, wretched vassals in luxury's train,
You bow at her footstool and worship her reign;

Oh! when shall a ray
Of your earlier day
Enkindle the spirit of freedom again.

Thrice happy New England! the home of our choice—

No foul blots of guilt thy escutcheon have stained,
Thy sons in the blessings of plenty rejoice,

And glory in freedom their valor maintained;—

Hail! hail to the era that happiness brings,
In our forests no longer the battle shout rings,

And over our land,
Unsubdued and bland,

The Angel of Peace spreads her halcyon wings. E.

An astonishing surgical operation was lately performed with success in the hospital of St. Louis, at Paris. A Peasant of the neighborhood of La Fere was persuaded that about five years ago he had swallowed with his food some reptile which in an inexplicable manner, still lived, as he affirmed, in his stomach. The Physicians employed various prescriptions without effect. Tortured by excruciating pains, the unhappy man resolved to go to Paris to be opened; which operation was in fact performed by making an incision just below the region of the heart, when it was ascertained that his conjecture was well founded. As soon as the animal perceived more air than it was accustomed to, it shewed itself at the end of the incision, but immediately drew back; when one of the assistants put his finger into the wound and drew out a snake two and a half feet in length, and eighteen inches in circumference. It lived sixty hours. The patient felt great relief, and is in a situation which gives no reason to apprehend any bad consequences.—*London paper.*

A small farmer in the vicinity of Manchester, not long since, killed a cow, and sent part of the beef and a quantity of suet to his son, a weaver in Blackley, who hung it up so near the window, that some one in the night broke a pane and carried off the suet. In the morning the weaver missing his suet, went to the ale house, where he posted up the following advertisement, which still remains an evidence of the right John Bull generosity and spirit:—"Whereas last night a quantity of beef suet was taken from the house of Thomas Wolstoncroft, this is to give notice that if the person who took it away will appear and prove that he was forced to do so by distress, the said Thomas Wolstoncroft will give him a dozen of flour to make the suet into dumplings. But if he cannot prove that he was in distress when he stole it, the said Thomas Wolstoncroft will fight him, and give him five shillings if he beats him."

THE NEW ENGLAND FARMER,

PUBLISHED BY THOMAS W. SHEPARD, ROGERS' BUILDING, CONGRESS STREET, BOSTON.

SEVERAL numbers of a Newspaper, with the above title, have been published in Boston, and have met the approbation of intelligent Agriculturists, and an enlightened public. The following remarks relative to this publication, are the result of the unbiassed and disinterested deliberations of highly respectable and very competent judges, whose names, and the observations to which their signatures are attached, must render farther recommendations superfluous.

NEW ENGLAND FARMER.—Published by Thomas W. Shepard.

The opinion of the subscribers having been requested in favor of this publication, with the avowed and very proper wish, on the part of the publisher, that it might tend to the increased circulation of his Journal. (the first, avowedly devoted to the interests of agriculture in New England.) we cheerfully afford our testimony, as far as it may be of any value to him. Though the American public, when compared with that of other nations, may be considered a thinking and reading one, yet from various causes, which it cannot be necessary to state, much the greater part of its reading is confined to, and its information obtained through daily, weekly and other periodical journals. In a country, in which the Elective power as to almost all offices, is enjoyed and exercised by the great mass of the people, it is natural, that politics, including the national state, county and town interests and concerns, should occupy much the largest share of our public journals—next to these, commerce and manufactures must of necessity hold a high rank. These require so much more constant and more accurate information—so much in those branches depends on political, commercial and agricultural events abroad—so much on the state of foreign markets, on losses and disasters at sea, that it is no surprising that nineteen twentieths of all our newspapers are occupied either with politics or commercial news. So much is this the case, that it was doubted for a long time whether an Agricultural Newspaper could be supported—but the success of the American Farmer, printed at Baltimore, by John S. Skinner, Esq. and the Plough Boy, at Albany, by Solomon Southwick, Esq. has proved that there is a sufficient degree of zeal and intelligence and desire of knowledge among the cultivators of the soil to sustain a few purely agricultural papers. If one is to be added to the two, which now exist, among the several thousand Newspapers now printed in the United States, it would seem that New England is its natural and most proper situation, and Boston as conveniently placed for its publication and correspondence as any place in New England. We hope we have as many thinking and reading farmers in the Six New England States, not only as any other portion of this country, but as any equal portion of the cultivated world can afford or furnish.

It seems to be absurd, that farmers should subscribe for papers devoted exclusively to questions in which they have only a remote interest, and should decline giving their aid to one entirely devoted to their instruction, amusement, and to the record of their improvements, doubts, queries, discoveries and speculations. The paper now commenced has every thing to recommend it as far as we have had an opportunity to judge. Mr. Shepard is well known as an editor of a valuable paper at Northampton. That he has all the professional skill, and the requisite liberality in the execution of his work, is manifest by the numbers already published. They are neatly executed on good paper and with a fine type, with great care and accuracy, far above, in these respects, (we may say, without offence, we hope,) any other like publication. His present assistant THOMAS G. FESSENDEN, Esq. is a man of reading and talents, and has paid great, and for our country, most unexampled attention to agricultural subjects. His mind is philosophical, and his attention is undistracted by other pursuits. His life has been principally devoted to such subjects. The numbers as yet issued are respectable, as much so as could be expected, before the public at large had taken an interest in the work. We hope that it will succeed, but that must wholly depend on the aid which the intelligent Divine, Lawyers, Physicians, and practical Farmers in the country will afford it. That aid must consist not only in taking it and paying their subscriptions—that to be sure, is its necessary food, without which it must starve—but in favoring it by communicating their thoughts, experiments, objections to existing practices, or to new projected improvements. It should be remembered, that this is a mere Newspaper, and therefore, that a man who would not write a book in his own name, or an article for the Massachusetts Agricultural Repository need have no scruple in writing for this.

AARON DEXTER, President of Massachusetts Agricultural Society.

S. W. POMEROY, 1st Vice President.

THOMAS L. WINTHROP, 2d Vice President.

JOHN LOWELL, Corresponding Secretary.

RICHARD SULLIVAN, Recording Secretary.

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The New England Farmer is published weekly, on Saturdays. Each No. contains 8 quarto pages, printed on a sheet of good quality, with an entire new type. The price is \$2.50 per annum, in advance, or \$3.00 at the close of the year.

Each volume will comprise 52 numbers, and the present volume commenced the first Saturday in August. A title-page, and a correct and copious index will be given at the end of each year. Persons who will procure seven subscribers and become responsible for the payment, will be entitled to a copy gratis, and in the same proportion for a larger number.

Congress-street, Boston, Oct. 1822.

✍ Editors of papers with whom we exchange, by giving the above an insertion, will confer favor which we shall be happy to reciprocate when an opportunity offers.

NEW ENGLAND FARMER.

Published every Saturday, by THOMAS W. SHEPARD, Rogers' Building, Congress Street, Boston; at \$2.50 per ann. in advance, or \$3.00 at the close of the year.

VOL. I.

BOSTON, SATURDAY, OCTOBER 26, 1822.

No. 13.

CATTLE SHOWS, &c.

OFFICIAL REPORTS
OF THE CATTLE SHOW AT BRIGHTON,
Oct. 9th & 10th, 1822.

No. I.

On all the larger Horned Cattle (except Heifers.)

The Committee report that the animals in this branch of live stock, were unusually numerous and good, proving, that a gradual and regular improvement is steadily, and as rapidly as could be expected, taking place. The number of entries for premiums, in this department alone, amounted to 42, and of individuals (many entries comprising more than one) to 52, while the whole number of premiums offered, and granted, are only 10, so that four fifths of the competitors were necessarily thrown out.—This is inevitable, unless our funds should be exceedingly increased, or unless we should make our premiums smaller, and more numerous. This might be liable to great objection, by extending rewards to animals of inferior merit, and thus diminishing the motives to make the breeds as perfect as possible. While the beneficial effects of the liberal premiums offered by the Society, for the importation of the most improved breeds of foreign countries, is every year evinced by the crowds which, from the beginning to the end of our shows, gather round the imported animals, and their improved progeny, we ought never to forget the sound advice of the venerable farmer who addressed the Society this year, "that the progress of improvement by foreign crosses must be very slow;" and possessing as we unquestionably do, the materials among our own stock of improving our breeds by careful selection, we should follow the example of Bakewell and the other British farmers, who in fifty years have raised the stock of Great Britain to a state of perfection little short of what it is supposed they can ever reach. And, who at the late show had the pleasure of viewing those fine animals, Denton and Cœlebs, could doubt whether they were superior to any animals of the same description now to be found in New-England? And why is this the case? Assuredly our pastures are as fine, and the race has not degenerated with us. Wherever a pride is felt in raising fine stock, our success is perfect, and the single town of Sutton might send its team of 120 oxen and challenge Devonshire or any other county of Great Britain, to trials of strength or activity.

Let us then, on this occasion, earnestly solicit our farmers to select and propagate only the best individuals of their horned cattle. If they reply, we feel no encouragement to do this because we find the improved crosses always preferred at your shows, we reply that though this is partially true, it is not entirely so, and what would the farmer have us do on such an occasion? If, in fact, the full blooded or half blooded descendant of imported stock is superior, shall we refuse to admit it so to be? This would be indeed sacrificing the best interests of our country in relation to this object, as well as violating our solemn pledges, to gratify an improper na-

tional prejudice. Our true course is to strive to equal or surpass the foreign races by selections and careful management of our native stock. It was upon this principle that our manufactures have been built up on the only solid foundation. Instead of complaining that foreign goods were preferred, our citizens have exerted themselves to make our own *better* as well as *cheaper*; and let Manchester and Yorkshire beware, lest they find themselves not only shut out from our markets, (not by prohibitions but by skill and industry) but eventually rivalled in those of foreign countries. These preliminary remarks are not only intended to allay, or diminish any feeling of discontent at our impartial preference of the best stock, from whatever country it may have been originally derived, but to encourage our own farmers to take more efficient measures for the amelioration and improvement of our own native breeds. They cannot attend one of our shows, without perceiving the *public preference* for the new races, and this is a strong confirmation of the justice of the decisions, though we are aware that it is not the least difficult task of the Committee to endeavor to decide without any bias from this clearly pronounced opinion of all the bystanders.

We have said, that the imported stock and their progeny have usually been preferred by the visitors at our shows;—we would make *one exception*, and that is, with respect to milch cows. Although the milch cows of Great Britain and the Netherlands are *in general* far, infinitely, superior to our own,—yet during the six years in which I have had this unpleasant duty to perform, I have never seen an imported cow of equal merit (taking the positive evidence of qualities, the quantity and quality of milk into view) with some of our own which have been offered. So fully am I convinced of this truth, as well as that our country possesses a very considerable number of these fine cows, that I am persuaded, that, if Great Britain or the Netherlands were to send us ten cows each, of the best quality, New-England alone could furnish twenty, which would equal them in the quantities of milk, butter and cheese, which they would respectively produce. If this should be true, and I have no doubt of it, we at least possess *one* of the parents in perfection, from which an improved race might be procured. This opinion is not expressed lightly. We infer its truth from an examination of the products of foreign cows, thought to be so extraordinary as to merit notice in their periodical journals; and during our short period of exhibitions, we have had several, which have equalled the best, of which any accounts have been published. But we would wish, that it should be distinctly understood, that we refer only to a small part of our milch cows, and that we fear much the greater number are lamentably poor. We are well convinced, that some dairies in our country, with two good cows, produce as much as the *average* of those which have five. If we are correct, or nearly so, in the opinion above expressed, how does it happen that our breed of cattle on the whole is so inferior? Because the owner of a good cow, instead of putting a proper value upon her, will generally

send her to the nearest scrub bull, to save a little labor, and some trifling difference of expense. This we all feel and know to be true. But this shameful negligence is giving place to more judicious measures, owing principally to the effect of the public shows. If every owner of a good, and very superior cow, would consider her in a proper light, not merely as a valuable animal during her life, but as capable of improving his whole stock—if he will spare no moderate expense in procuring calves from her, from bulls of an improved breed, we shall soon see our whole stock gradually improve. Bakewell and Princeps, among the most distinguished raisers of stock in Great Britain, lived to see their improvements eminently successful. We are fully aware, that all this exhortation and argument is of very little importance, compared with the more substantial proofs *derived from prices*.—When, therefore, our farmers learn, that a calf of six months, has been sold at the price of four ordinary cows, of five years old, who have consumed twelve tons of hay, including pasturage, and have required great labor in attending on them; when they hear such a fact as this, that an excellent judge offered fifty dollars for a two months calf, of the cow herein after mentioned, owned by the Hon. Mr. Gray, they produce more conviction than any other sort of address.

Before we announce the premiums, we would express the thanks of the Trustees to those Gentlemen, who without claiming any reward, and purely with the view of giving aid to the show, exhibited fine animals at no small expense and trouble. It is probable that as the Committee took no minutes of these animals some of them may be overlooked. *One* we could not forget—the fine imported bull Denton, belonging to Stephen Williams, Esq. of Northborough. He has improved with age, and shows that he has an owner who is sensible of his great value. Nor could any one overlook Cœlebs, owned by Major Jaques, of Charlestown. If there had not been any other animals on the ground, those who are fond of viewing fine natural productions, would feel that a visit to Brighton was well repaid by the sight and comparison of these animals, differing considerably to be sure, but each very remarkable for beauty. There was also a fine imported cow, with her calf, lately bought by the Hon. Mr. Gray for \$200. Such liberal prices will ensure a constant and gradual improvement of our stock. It is said that this cow is very remarkable for the quantity and quality of her milk—we have heard that she had given in England 36 quarts per day, but there was no person to give us any accurate account of her. Capt. Tracy, of the London Packet, added a new proof, to the many he has already given, of his zeal for the promotion of the Agriculture of his country, by exhibiting three young horned animals, just imported by him. Major Jaques also exhibited three fine cows, without asking a premium.

After so long a trial of the patience of the Competitors, by these introductory remarks, many of which competitors will, however, be *disappointed quite as early* as they would wish—The Committee awarded the premium:

For the best fat ox, 6 years old, to Oliver Starr, of Deerfield, weighing 2333 pounds	\$40
For the next best do. 6 years old, to Lewis Barnard, of Worcester, weight 2256	30
For the next best do. 5 1-2 years old, to Amos Davis, of Groton, weight 1992	20
For the best bull, to Major S. Jaques, of Charlestown—weight 1243—15 months old	30
For the next best do. to Joshua Coolidge, of Watertown, by <i>Cælebs</i> —weight 735—7 months and 4 days old	20
For the best bull calf, to Uriah Maunio, of Woburn, being the progeny of <i>Cælebs</i>	15
For the next best bull calf, the progeny of <i>Denton</i> , to the Hon. Levi Lincoln, of Worcester	8
For the best milch cow, to John Barr, of Salem	30
For the next best do. to Samuel Murden, of Mil-ton	20
For the next best do. to the Hon. John Welles, of Dorchester	15

As to milch cows, one of the most important, as well as most difficult articles to decide upon, the Committee proceeded, as they will probably hereafter always proceed, solely on evidence as to the *actual* product. The clearer this evidence, the more certain the success. The goodness of a milch cow depends on so many circumstances, and all of them so important, that the Committee are obliged to extend their inquiries very far. Form and beauty is of some moment, but it is also sometimes fallacious; and no one would reject a fine cow, which should give an uncommon quantity of fine milk—butter superior in quantity and quality—continue to give milk every year, till within one week of calving, merely because she had a great head, or a large frame, or small teats, or, in short, because she had not any one of the *fine points* described in the "Complete Grazer." In this, as in every thing else, we must not always trust wholly to the *exterior*.

It has been usual to notice those animals of considerable merit, which deserved attention, but did not obtain premiums. I have never been satisfied with this course. Its tendency is in some degree to lessen the value of the rewards we bestow, if we praise too much those which were not successful; and after all we only shift the mortification, and make it fall with more severity on the greater number whose animals are *not* noticed—but as it is the usage we comply with it. There was a very fat ox presented by Mr. Savary. He was fatter than some of those which obtained the premium, but the difference of age decided the question against him. There were fine bulls offered by Mr. Warren, Mr. Ward, Mr. Rice, Mr. Patch, of the fine native breed, so often noticed by us—and by Mrs. Amory, of the *Cælebs* breed, one of which took a premium last year. There was also a superior Holland Bull, imported by Mr. Forrester, offered for exhibition only.

The best bull calf, not noticed in the premiums, was Mr. Lee's, of Brooklyn, Mai. Jaques' and Dr. Chaplin's. Many others were also very fine.

Of the cows, Capt. Ingles's, of Dorchester, were very remarkable—and also Mr. Brigham's, Job Ranger's and H. Warren's, both of New Braintree—but we have already explained the principles of our decision as to milch cows, which we hope will be satisfactory.

The Committee have endeavored to give general satisfaction, and if they have failed of that, they will at least have the pleasure of having satisfied themselves.

JOHN LOWELL, *Chairman*.

No. II.—On the Smaller Animals.

The Committee of the Massachusetts Society for the Promotion of Agriculture, appointed to decide on all the smaller class of animals including heifers,

REPORT :

That twenty-five animals of the class of "heifers, of from one to three years old," were in the pens for premium or exhibition—all of an excellent quality, and most of them of approved breeds; and generally indicating the increasing attention of the agricultural interest to this important class of stock. The general improvement in this class of animals, compared with our former Cattle Shows, was very marked and decided.

The first premium was awarded for a heifer owned by Henry Rice, Esq. of Marlborough. She was of the breed of "Denton," the celebrated imported bull owned by Stephen Williams, Esq. of Northborough. This heifer was two years old on the first of February, from a cow of the Princeton breed; her form and figure strongly indicative of her size. The heifer sucked only twelve weeks, has had no other keeping than common pasturage and *Meadow hay* in the winter. She calved in May; at six weeks her calf weighed 88 lbs. (the quarter) and never took all her milk until it was five weeks old. This heifer has given from twelve to fourteen quarts of milk during the season,

The second premium was awarded for the heifer owned by Mr. Samuel Brooks, of Brighton, who had also received no extra keep, and was a beautiful sample of the approved Holderness breed, introduced into the state by Gorham Parsons, Esq.

There were other distinguished animals of this class, which deserve particular notice, and were highly approved. Such were that belonging to Mr. Wheeler, of Framingham, also of the Holderness breed; and those presented by the Hon. Mr. Lincoln, also of the Denton breed, and were animals of beauty and promise.

Five heifers belonging to Hon. Mr. Welles, of his own improved stock, which has on former occasions had distinguished notice by committees of this society.

To these ought to be added the heifer of Mr. Coolidge, and that of Francis Amory, Esq. from Maj. Jaques' imported bull *Cælebs*; and also those of Mr. John Breed, of Bellisle, from Mr. Thorndike's bull "Fill Pail," all partaking of the excellent and peculiar qualities of their respective breeds.

The Committee also award for the best Boar,

The first premium to Joseph Rice, of —, the sum of

The second premium for the best Boar, they awarded to Mr. Spark Vose, of Watertown, the sum of

The first premium for the best Store Pigs, they award to Mr. Luke Fiske, of Waltham, the sum of

The second premium for the best Store Pigs, they award to Mr. Aaron Dow, of Brookline, the sum of

The first premium for the best Merino Ram, they award to Gorham Parsons, Esq.

The committee regret to observe that the general specimen of Merino Sheep exhibited for premium were in their opinion inferior to those of former years. They feel themselves justified only in awarding a second premium for the best Merino Ewes, to Gen. Austin

The second premium for Merino Wethers they award to Francis Amory, Esq.

For Native Wethers there was no competition.—Those presented by Mr. Silas Hall, of Phillips-ton, were very fine animals, and deemed worthy of the first premium, which the committee accordingly award, of

[Upon condition that he give evidence according to the rules, that they were wholly bred in this state, and raised by the persons exhibiting them.]

A pair of Stags were presented by Mr. Meriam of Concord, as a specimen of a new mode of altering cattle; and which he represented as easier, equally effectual, and less dangerous than the ordinary method. Your committee were not authorized to grant any premium on this account. Nor can they recommend any to be given, without a more satisfactory evidence of the success of the operation and of all the advantages specified. Should this be the case, at any future time, it will always be in the power, as they doubt not it will be the inclination of the trustees, to grant a just reward for this, as well as for any other successful improvement in the important operations of agriculture.

Mr. Meriam also presented several spayed Sows, for the society's premium for animals of that description; but they were not accompanied by any statement of the mode of operation and treatment as required by the rules established by the Trustees, and besides, the operations were very recent, and apparently, some of them at least, done expressly for the exhibition, and for the purpose of offering for the premium. Now in a case of this nature, when a premium is proposed expressly for the purpose of testing the efficacy of an important, and in this country, in some respects, a new operation, your committee apprehend that no premium ought to be granted, unless by well attested experiments, supported by a lapse of time sufficient to leave no question of the result.

Mr. John Baker had entered also four spayed sows, belonging to Gorham Parsons, Esq. for the premium proposed for the same operation. They were in fine health and completely healed—neither disfigured nor weakened by the operation. A certificate also accompanied, made by Gorham Parsons, Esq. which will be laid before the Trustees for their consideration, conformable to their proposal, and in case the same shall be considered, or shall be made satisfactory to them, they in such case award to Mr. Baker the premium of

Samuel Jaques, Esq. also presented for the Society's premium, of the improved Leicester breed of long woolled Sheep, having a cross of the South down, one Ram and six Ewes. They were bought by him in Pennsylvania, and from thence brought into this State. Although your Committee know that the intention of the Society, in the proposal offered in the terms of that premium was, to encourage the importation of the animals from some foreign kingdom or state—and that therefore, strictly speaking, Colonel Jaques would be entitled to no premium on the terms of those proposals; yet your Committee consider the animals are in this State a new and very important race of Sheep, although precisely not of the description proposed, and that Col. Jaques has at considerable expense and trouble, introduced them into it. They, therefore recommend that a premium be granted to him of

The Hon. Thomas H. Perkins, Esq. also presented for exhibition, a Ram and two Ewes of the long woolled Sheep of the Netherlands, the length of whose wool was greatly superior, and its fineness but little inferior, if at all, to those of our present breeds. And although it was not the intention of that distinguished merchant to

stand candidate for any premium, his sole purpose being to aid in the improvement of our breed of Sheep, and thereby to encourage the agriculture and manufactures of his native State, yet your Committee, apprehending that all exertions of this kind, so honorable to the individual, and so advantageous to the community, should receive some mark from our Society of its sense of the benefit conferred on the Commonwealth, they therefore recommend that the Gold Medal of the Society, of the value of fifty dollars, be presented to Mr. Perkins, for this distinguished and successful effort to improve the breed of Sheep in Massachusetts.

JOSIAH QUINCY,
NATHL. INGERSOLL,
THOMAS WILLIAMS,
Noddle's Island.

No. III.—On Manufactures.

Brighton, October 10, 1822.

The Committee on Manufactures award:

- The first premium for Broadcloths, to James Shepherd & Co. of Northampton \$30
- The second premium for Broadcloths, to the Wolcott Woollen Manufacturing Co. 20
- The first premium for Household Cloth, to Jona. Mann, of Worcester 12
- The second premium for do. to Stephen Buttrick, of Framingham 8
- The first premium for superfine Cassimere, to the Wolcott Woollen Manufacturing Co. 15
- The second premium for do. to James Shepherd & Co. of Northampton 10
- The first premium for Superfine Satinet, to Daniel Ellis & Son, of Walpole 10
- The first premium for fine Flannel, to James Howorth, of Andover 10
- The first premium for Carpeting, to Sarah Patrick, of Worcester 15
- The second premium for do. to Adolphus Bartholomew 7
- The first premium for Linen Cloth, to Anna R. Putnam, of Grafton 8
- The first premium for Diaper, to Mrs. Putnam 10
- The second premium for do. to Susan Young, of Newbury 5
- The first premium for Sewing Silk, to Lemuel Healey, of Dudley 5
- The second premium for do. to Caroline Bronsdon, of Milton 3

The following gratuities are also awarded:

- To Clarissa Fay, of New Braintree, for a very good specimen of fine Flannel 5
- A premium being withheld on account of a deficiency in the number of yards, the Committee recommend the gratuity in consideration of the excellence of the fabric and the importance of the manufacture.—And for the same reasons a gratuity of \$5
- To Susan Warren, of Chelmsford, for a piece of Linen of household manufacture.
- To George Johnson, of Salem, for a specimen of Duck by machinery of recent invention 10
- [This Duck is thought superior to any brought to this market from Europe, and can be afforded at a price advantageous to the purchaser.—The character of the machinery employed, and the quality of the article, afford a hope that duck may become one of our staple articles.
- To Gerry Fairbanks, of Boston, for fine Beaver Hats \$20
- [Hats of the same quality are still imported.—The committee have therefore recommended a liberal gratuity in this case, as there is both stock and skill enough in the country to put a stop to the importation.]

At former exhibitions the imitation Leghorn Hats have been of a medium quality; this year there was one specimen from Vermont perhaps finer than any ever imported. As it was manu-

factured in another State, the committee are not authorized to do more than to commend the excellence of the fabric.

For other specimens of Straw and Grass manufacture, they recommend gratuities as follows:

- To Ann Dalrymple, of Marlborough, for Straw Bonnets \$5
- To Meriam Haven, of Hopkinton, for do. 5
- To Sally & Eliza Perry, of Brookfield, for a Grass Hat 5
- To Betsy Bennet, of Framingham, for an imitation Leghorn Straw 5
- To Susan Sherman, of Marlborough, for do. 3
- To Mary and Hannah Dobben, of Beverly, for Straw Bonnets 3

Gratuities to the following persons are likewise recommended for their specimens of ingenuity and industry:

- To Fanny Pierce, of New Braintree, for a counterpane and coverlet 5
- To Sally Penniman, of do. for a hearth rug 3
- To Caroline Fiske, of Waltham, for a counterpane 3
- To Susan Stearns, of Waltham, for a knit mantle of cotton yarn 2
- To Mehitable R. Dean, of Mansfield, for a hearth rug 3
- To Priscilla Cotton, of Plymouth, for a hearth rug 3
- To Samuel B. Pope, of Boston, for a specimen of men's boots 5
- To Ann Heath, of Roxbury, for a specimen of fine cotton hose 5
- To Rebecca Johnson, of Boston, for a hearth rug 3
- To Sarah Glover, of Dorchester, for a cotton counterpane 3
- To Rhoda Holman, of Bolton, for a fabric of silk weed 2
- To Levi Sawyer, of Bolton, for woollen hose 2
- To a female of Boston, for very fine hose of merino wool 2
- To Sarah Moore, of Brighton, for fine down tippets 2
- To Sarah, Polly and Hannah Lewis, for various articles manufactured from Down, and for *Artificial Flowers* 6
- To Nancy Wheeler, of Worcester, for Fans manufactured from feathers 2

Messrs. Barrett, Tileston & Co. of Staten Island, presented for inspection some very handsome Woollen Table Cloths and Silk Handkerchiefs as specimens of their work in the art of Printing and Dying. These deserve mention as highly creditable to the taste and skill of the manufacturers. The Handkerchiefs exhibited were originally striped and crossbared silks. They were shop goods damaged; the original colors were extracted; they were redyed and printed as exhibited.

With respect to the progress of our principal woollen manufactures, the Committee think it may be useful on this occasion to remark, that Flannels of every degree of fineness required for home consumption may be manufactured at reasonable prices with the machinery and skill now in the country. That our best cassimeres are substantial, well made and well finished, and approach nearer to those of first quality made in England, than our best broadcloths do to the best of that country.

That our best Broadcloths are improving progressively with the gain of experience, and faster as respects goodness and the style of finishing than fineness, and there is still room for improvement in the dying and dressing.

There were no extra fine Broadcloths at the exhibition. This may be accounted for without discrediting the manufacturers, by advertising to the fact that there is a full demand for cloths of a medium quality, at prices which give a large profit; the manufacturers are under no inducement therefore to attempt extra fine

cloths. However much it might gratify our pride to see cloths of this description spread before the public at our annual exhibitions, it is neither for the interest of the manufacturer nor of the country, that it should at present be gratified. The best cloths shown at the hall this year, were some pieces from the Litchfield Woollen Factory in Connecticut, offered not for premium, but for exhibition; and these were thought by the Committee deserving of an honorable mention on this occasion. No Cotton Cloths were exhibited; and this among other circumstances may be considered as proof that they require no encouragement beyond that afforded by the present good market.

RICHARD SULLIVAN, } Committee.
WM. LAWRENCE, }

No. IV.—Inventions.

The Committee of the Massachusetts Society for the promotion of Agriculture, to whom were referred the subject of Inventions, REPORT:

That they have had the gratification of inspecting a number of machines connected with the facilitating manufactures and the labors of agriculture, which have been deposited in the society's room, but none coming within the exact terms of their commission, except a Cast Iron Roller, which was duly entered for premium by Aaron Willard, Jr. of Boston. This roller is apparently an improvement on the ordinary roller. It consists of two rollers moving upon one axis, and thereby turns easier and makes less ridges. But the owner not being present nor any person in his behalf, the Committee have not been able to make those inquiries which are necessary to enable them to award any premium.

The next machine presented for their examination and entered for premium, was a Vertical Family Spinner, invented by John Brown, of Providence, and presented for premium by J. R. Newell. It is apparently capable of spinning with from six to twelve spindles, and it was stated to your Committee that a girl of fifteen years of age of common capacity, is capable of tending it; that the thread may be gauged at any number which may be wanted. The size is very compact and takes up a less number of square feet on the floor, than a common spinning wheel. But the Committee had no certificate of its power or evidence of its being used in any family and found to be by experiment capable of facilitating domestic spinning. In their opinion this is the only test of its real utility. They think it a sufficiently simple and ingenious machine. But whether it will perform all that it is promised, your Committee, are for the reason above stated, not able to decide; and the machine not being within any of the specified objects of premium, your Committee do not deem themselves justified in recommending, under these circumstances, any specific premium.

The machine which most attracted the attention of our Committee, was one presented by Joseph Pope, Esq. of Boston, a gentleman long known to the public by his inventions and mechanical ingenuity. This machine is patented; intended to work by hand, in its present model, but easily capable of being enlarged and applied to a horse power.

The material to be threshed, passes through opposite sets of surfaces placed transversely in a frame. They are respectively moving rods;

and constitute a threshing power on an open floor composed of stationary rods.

It was stated to your Committee that it threshed 50 bushels of grain in 12 hours; and 4 bushels and 12 quarts of oats in 1 hour; and that a common sized sheaf passes through it and is completely threshed in 1 minute. The labor is done by two hands, one destined to turn it, the other to feed it, or one man and two boys are sufficient for the same purpose.

In the experiment made before the Committee, it threshed the grain out perfectly. And it is obvious that with a very small expense, it may be converted into a machine for cutting straw without any injury to its threshing power.

Owing to an accident, for which the owner of the machine is not responsible, it was not duly entered, although it was brought to Brighton and deposited in the society's room in proper season for that purpose.

As your Committee consider the machine as likely to be very useful, and as Mr. Pope has been at great expense and trouble for the purpose of bringing it to Brighton, your Committee apprehend that some notice ought to be taken of it, and they therefore recommend that he should have a premium of \$20, he producing the requisite certificates of its being used and approved by a practical farmer.

Mr. Newell also presented for premium, a Corn-Sheller, on a horizontal movement, on a wooden barrel.

The Committee did not see its power, but apprehend it may be made a useful machine, with some improvement, but do not consider themselves authorized in its present state to award a premium.

The same gentleman presented for exhibition a number of excellent and approved English machines, and also some of the invention of this country, among these they notice

An English Turnip Cutter.

Three Double Mould Ploughs.

Batson's Scarifier.

Batson's Cultivator.

Howard's Patent Plough.

Also, an English Hay Maker, sent from Baltimore. All of them are worthy of the attention of gentlemen, interested in improving the agriculture of the country, and their being brought to Brighton for exhibition does great credit to the attention and zeal of Mr. Newell.

A Patent Threshing Machine, invented by —, and also a Patent Hulling or Smut Machine, accompanied by strong and numerous printed recommendations, were presented for the inspection of your Committee, but they had no opportunity to judge of their respective operations.

JOSIAH QUINCY,
CYRUS ALGER,
PAUL MOODY.

No. V.—Working Oxen.

The Committee appointed by the Massachusetts Society for Promoting Agriculture, to decide on the claims for premium for the best *Working Oxen*, at the Cattle Show at Brighton, Oct. 10, consisting of John Welles, Silas Gates and Elijah Perry,

REPORT:

That they were well pleased to find amongst the other distinguished evidences of improvement at their show, an increased number of Working Cattle, superior to any previous exhibition.

Twelve yoke of Working Oxen were entered and appeared to contest for the premiums offered by the Society.

The Cattle were in general in their training more perfect, and the committee feel confident that the community may look forward to the most gratifying results.

After taking into view the *strength* in reference to their *age* and *size*, the *equality of match*, the *docility* and *training*, as well as other *general circumstances*, the Committee unanimously agreed to award the following premiums:

To Luther Whitney, of Sutton, first premium	\$30 00
To Peter Darling, of Sutton, second premium	25 00
To John Sherman, of Sutton, third premium	20 00
To Daniel Marble, of Sutton, half of the fourth premium	7 50
To Jonas L. Sibley, of Sutton, the other half of the fourth premium	7 50
To Capt. Joseph Curtis, of Roxbury, the fifth premium	10 00

The Committee were all pleased to see so favorable an illustration of the benefit of the Ox Team, as was generally presented, the use of which cannot but be considered as including the most essential interests of the state.

To the honor of a small but respectable section of the country it receives a principal part of the premiums of the Society. But it is believed that no man will doubt the distinction is well merited. It is to be hoped that other parts of the state will feel excited to such an exertion as will spread the evidences of our farmers care and skill more equally over the state, and thus the great object of the Society in the advancement of the honor and interest of the Commonwealth be promoted.

(Signed) J. WELLES, *Chairman*.

No. VI.—Ploughing Match.

The Committee on the Ploughing Match, consisting of John Prince, Benjamin Goddard, and S. G. Derby, having attended the duty assigned them, beg leave to

REPORT:

That the ground selected for the purpose by the Committee of Arrangements, was a very tough green sward of 20 years lay, and had been chiefly used as pasture for fat cattle, was previously laid off in lots of sixteen rods long and one and a quarter rods wide, making one eighth of an acre, (which was less than was wished, but being the only spot convenient that could be procured, could not admit of their being larger)—the soil excellent and free from stones or trees, and each team had a perfectly equal chance. The ploughs were duly entered for the contest, and the ploughmen drew for lots as follows:

- No. 1.—Aaron Davis Williams, of Roxbury, one pair of oxen, Lewis Bliss ploughman, David Howe driver—Warren's Dedham plough, with wheel and cutter—18 furrows—finished in 34 minutes.
- No. 2.—Jonas L. Sibley, of Sutton, one pair of oxen, Samuel Sibley ploughman, Peter Darling 2d driver—Common Sutton plough, with wheel—17 furrows—23 minutes.
- No. 3.—Stedman Williams, of Roxbury, two pair oxen, Stedman Williams ploughman, Samuel Prince driver—Warren's of Dedham, plough, with wheel—18 furrows—26 minutes 30 seconds.
- No. 4.—Joseph Curtis, of Roxbury, two pair oxen, Luke Rollins ploughman, Amos Wyman driver—Warren's Dedham plough, with wheel and cutter—20 furrows—27 minutes 30 seconds.
- No. 5.—Luther Whiting, of Sutton, two pair oxen, Royal T. Marble ploughman, Luther Whiting driver—Sutton plough, with wheel—16 furrows—30 min.

No. 6.—Aaron D. Williams, of Roxbury, one pair oxen, Thomas Howe ploughman and driver—Warren of Dedham plough, with wheel—19 furrows—46 min.

No. 7.—Silas Ludley, of Sutton, two pair oxen, Silas Dudley ploughman, Joseph Dudley driver—Warren of Dedham plough, with wheel and cutter—17 furrows—26 minutes.

No. 8.—Isaac Cook, of Brookline, one pair oxen, Caleb Miller ploughman and driver—Warren of Dedham plough, with wheel and cutter—19 furrows—33 min.

No. 9.—Moses Seaver, of Brighton, one pair oxen, Moses Seaver ploughman, Benjamin Porter driver—Howard of Hingham's plough with wheel—20 furrows—24 minutes.

No. 10.—John Sherman, of Sutton, one pair oxen, Asa Cummings ploughman, John Sherman driver—Sutton plough with wheel—18 furrows—22 minutes.

Previous to the ploughing, it was distinctly stated by the Committee, that the furrow must be not less than 5 1-2 inches deep, and their greatest wish as little to exceed 10 inches in the width of furrow as was possible, and not to hurry their cattle, as they conceived the *best work* could not be performed if over driven—and that goodness of work, together with that of cattle, would be a great object in deciding premiums, as well as cheapness of labor.

They have great pleasure in stating, that the work was well done, and most of it in a superior style, and that those competitors who failed in obtaining premiums, was because the Committee had it in their power to award only three among ten claimants—indeed, they conceive praise is due to all the ploughmen, who discovered great skill in the management of their implements, and the cattle were universally excellent—and in consequence of the request of the Committee that they should not be hurried, they could generally have proceeded in another one eighth of an acre with ease.

The Committee have been unanimous in their awards after a very critical examination, as follows:

1st premium to Isaac Cook	\$20
Caleb Miller, ploughman	10
do. do. driver	5—35
2d premium to Joseph Curtis	12
Luke Rollins, ploughman	6
Amos Wyman, driver	3—21
3d premium to Stedman Williams	8
do. do. ploughman	4
Samuel Prince, driver	2—14
	\$70

All which is submitted,

JOHN PRINCE,
BENJAMIN GODDARD,
SAMUEL G. DERBY.

No. VII.—Agricultural Experiments.

The Committee on Agricultural Experiments, to whom was also committed the inspection of sundry articles of Manufacture, for which premiums were offered,

REPORT:

That five several parcels of Cheese, of more than one year old; and seventeen parcels of new Cheese, were offered for the Society's premiums; which, in the opinion of your committee, are superior to any hitherto exhibited; all made in the town of New Braintree, in the County of Worcester, excepting one parcel of five cheeses, made by Mr. John Ayres, of Oakham, in the same county; of the former, that from the dairy of Capt. John Hunter, was considered to be the richest and best made cheese, and is entitled to the premium of ten dollars; that from the dairy of Capt. Ebenezer Tidd,

the next best, and is entitled to the premium of five dollars. Of the new Cheese, that from the dairy of Mr. William Earl, was considered to be the best, and is entitled to the premium of ten dollars; that from the dairy of Major Roswell Converse, the next best, and is entitled to the premium of five dollars.

Several parcels of fine flavored Butter were also exhibited, uncommonly well made, the buttermilk being more perfectly expressed than usual; that from the dairy of Miss Mary Clark, of Watertown, in the County of Middlesex, was considered to be the best; that from the dairy of Col. Stephen Hastings, of Sterling, in the County of Worcester, the next best—the former is entitled to the premium of ten dollars, and the latter to the premium of five dollars.

For the greatest quantity of Butter and Cheese, made between the 15th day of May, and the 1st day of October, from not less than four cows, the quantity of the Butter and of the Cheese, and the number of cows, to be taken into consideration, Mr. William Earl, of New Braintree, has exhibited sufficient testimony, in the opinion of your committee, to entitle him to the premium of twenty dollars.

Messrs. Brewer & Jordan, of Roxbury, are entitled to the premium of ten dollars, for the best specimen of Sole Leather; for the next best specimen, Messrs. Benjamin Mirick & Co. of Roxbury, are entitled to the premium of five dollars.

Five barrels of Flour, from the wheat raised in the present season, on the farm of Gorham Parsons, Esq. in Brighton, and manufactured at the "City Mills," lately erected on the "Western venue," very little inferior in quality to the best made Philadelphia flour, were exhibited by Mr. Benjamin T. Reed, Agent of the Proprietors of said Mills, and are entitled to the premium of twenty-five dollars.

A sample of Starch, in imitation of the Potomac Starch, manufactured by Mr. Robert Jewes, of Boston; and a sample of Mustard, manufactured by Mr. Abraham Bickford, also of Boston, were exhibited—both appeared to be of a very good quality, perhaps equal to any imported; no premiums the present year, for either of these articles, were offered by the Trustees.

The vegetables brought to the Society's Hall very far exceeded in quantity, variety, and size, those exhibited in any former year. The roots of Mangel Wurtzel, sent by Dr. Chaplin of Cambridgeport, were very large, and in great perfection. The Doctor also presented to the Society a very fine Watermelon, from his own garden, which weighed about twenty-three pounds. From the farm of Edward Sparhawk, Esq. of Brighton, some "Silverskin" Onions, uncommonly large. From the garden of Mr. William Ackres, of Brooklyne, some roots of the common red Beet, of an early kind, and of a size seldom equalled. Mr. Josiah Coolidge, of Cambridge, and Mr. Samuel Murdock, of Milton, exhibited some very large Winter Squashes. One from the farm of the former weighed thirty-seven pounds. From the farm of Gen. Hull, in Newton, some Carrots, Ruta Baga, and English Turnips, all of them very large, "taken from a field of two acres, without any cultivation, but what was common to the whole field." From the farm of Capt. N. Ingersoll, of Brooklyne, some Arrak, being a new variety of the

Carrot. From the orchard of Mr. Henry Houghton, in Bolton, in the County of Worcester, some Blue Pearmain, which were supposed to weigh not less than one pound each. From the garden of James White, Esq. in Dorchester, in the County of Norfolk two specimens of the Cotton Plant, which grew in the open air, without particular care; one of which was Sea Island, the other Upland. The pods on both were well filled with Cotton.

From the farm of Capt. Joseph Warren, in Brighton, some ears of Corn, said to be of a very productive kind—"from three stalks ten ears were taken." From the orchard of Col. James Wilder, in Sterling, a very large fine Apple, called "Eve's Apples." From the farm of Dr. Eliakim Morse, in Watertown, some fine ears of the eight and twelve rowed Indian Corn.

By order of the Committee,

THOS L. WINTHROP, *Chairman.*

October 9th, 1822.

The claims for premiums on Agricultural experiments, will not be decided until the Trustees' Meeting in December; affording time for the competitors to offer the evidence required. The Committee will make an additional Report soon after that period.

BRIGHTON TOASTS.

At the anniversary Dinner, there were a number of good, some complimentary, and a few sparkling Toasts drunk. We have room for a few of them.

The *Coulter* on the land—the *Keel* on the sea—May the first run deep and both run clear: and all who hold the handle or the helm, find honor and reward.

Our mother Earth—May those have the best *share* in her affections, who take the *plough share*.

The world—A great Cattle Show, where the best animals are those who are not *overfleshy* nor *underfed*.

The noblest part of our exhibition—that which is above price, and needs no premium—the Show of New England Yeomary.

By Professor Everett—Colleges, Universities, and Cattle Shows—May all their *pens* do them equal credit.

By Hon. Mr. Quincy—The Presidential Ploughing Match—May the working ox beat the fillies.

By George Blake, Esq.—The American *Plough*, and the American *Prow*—May theirs be the victory on the *Plain* as on the *Main*.

The third annual Cattle Show and Exhibition of the Rhode Island Society for the Encouragement of Domestic Industry, was holden at Pawtuxet, on the 16th and 17th of Oct. 1822. In consequence of the premiums being limited to animals raised in the State of Rhode Island, the exhibition of neat cattle was not so great this year as at the last Cattle Show. About 60 individuals were exhibited in the pens, appropriated to neat stock, besides hogs, sheep and horses. Twenty-two premiums were awarded, the highest \$20, and the lowest \$4. The premiums on Agricultural produce will be awarded at the quarterly meeting of the Standing Committee. The committee regretted the want of competition in the articles of Shop Manufactures, but awarded eight premiums. These were for a secretary, blank books, patent steel spring seats, ladies' walking shoes, water loom shuttles, weavers' pickers, ladies' work basket, and short boots. The following articles were recommended, but the committee did not feel authorized to grant premiums, viz—steel slaies, water proof hats, men's shoes, plough with iron shares, and a cast iron corn-sheller. Among

the Household Manufactures, were counterpanes; a carpet by Mrs. Lydia Hunt, of Pawtuxet, made of grass and rushes; rugs; a beautiful straw hat braided throughout without seam, by Miss Ann C. Green, of Providence; window blinds of rushes, by Miss Sally Eddy, of Providence; a vandyke of milk weed down, by Miss Casey, of East Greenwich; butter; cheese, &c. The ground for ploughing, at the ploughing match, was a well formed green sward, divided into twenty rod lots; three of the lots were ploughed in from 17 minutes 53 seconds, to 19 minutes; and one (the best work,) in 29 min'ts.

Abridged from the Providence Journal.

The exhibition of the Rockingham Agricultural Society was made on Wednesday and Thursday of last week at Exeter. It was a subject of regret that the Rev. Mr. Abbot was unable, from severe indisposition, to deliver the annual address. We shall refrain from making any remarks upon the exhibition, until next week, when the official report will be published. It will be sufficient to mention that the manufactured articles were neither so numerous, nor so good as those offered last year, while the show of cattle was, in general, better. It is apparent that there is an increasing attention to the breed of Cattle in this part of the county, and that the general stock of our Farmers is gradually improving.—*Portsmouth Journal.*

The Addison (Vt.) County Cattle Show was holden at Middlebury on the 10th inst. It was attended by a vast concourse, composed chiefly of the most respectable farmers within the precincts of the Society. The specimens of Domestic Manufactures offered for premiums, in number and quality, far surpassed those of any preceding year, and any which have ever been exhibited in this County. A bonnet from the hands of a female in New Haven was shown, so ingeniously wrought as not easily to be distinguished from those imported from Italy; looking glasses from the shop of Mr. Joseph Sargeant, with which the exhibition room was ornamented, were adjudged to be truly ingenious and splendid specimens of the gilder's skill.

The samples of Maple Sugar were exceedingly white and palatable, and evince that with a moderate degree of care in its purification, it would be generally found far preferable to any West India production.

The highest premium for Corn was awarded to Nathan Case, Esq. of Middlebury, for 118 bushels to the acre. The largest number of bushels of Potatoes was found to be 315 from an half acre, cultivated by Mr. Barnabas Chipman, of Shoreham. The cattle and horses for size, beauty, and justness of proportion are seldom to be equalled. Some of the largest male swine that we have ever beheld were brought forward. Notwithstanding the immense importance of raising sheep, and the acknowledged improvements that have recently been made in this branch of rural economy, very few animals of this description were brought into competition.

Upon the whole, this celebration was highly satisfactory to the expectations of the friends of the Society, affording the strongest additional evidence of its increasing utility. Before its formation the farmer was in the habit of culti-

vating acre of land to raise the same number of bushels, which he has now learnt by proper management may be gathered from one, with far less labour and expense. The signal improvements which are apparent in the breeds of domestic animals can scarcely be dated back further than the organization of this Society; And the advances made in home manufactures have been greatly facilitated from the same cause. *Abridged from the Middlebury Paper.*

From the Old Colony Memorial.

The Destructive Worm more particularly investigated.

The worm which has arrested considerable attention in the O. C. Memorial, is no other than the grub-worm hatched from the eggs, of that species of beetle known by the several names of Chafer, Cock-chafer, May-beetle or more commonly May-bug. It is, the *scarabæus melolantha* Linnaeus. In Willich's Domestic Encyclopedia will be found the following historical detail of the insect in its several stages. "The May-bug or Cock-chafer has a pair of cases to its wings, of a reddish brown colour, sprinkled with whitish dust, which is easily separated. The necks of these insects are, in some years, covered with a red plate; in others, with a black; but they are distinct varieties. Their fore legs are very short, and thus better calculated for burrowing in the ground, to which they instinctively retreat. Chafers are well known by the buzzing noise they make, in the evening, when rising in the air; but particularly for the irreparable mischief they occasion to the industrious cultivator; having been found, in some seasons, so numerous, as to consume every vegetable production. These pernicious vermin are generated from eggs which the females usually deposit, about six inches deep in the ground. Three months after, the inclosed insects begin to break the shells and crawl forth, in the form of small grubs, or maggots, which feed upon the root, of whatever vegetables they meet with. In this worm state they continue for more than three or four years, devouring the roots of every plant they approach, and burrowing under the ground with the utmost celerity for food. At length they exceed a walnut in size, being large, white, thick maggots, with red heads which are frequently found in newly turned earth, and are much sought after by every species of birds. When largest, they are an inch and a half long, of a whitish yellow colour, with bodies composed of twelve segments, or joints; on each side there are nine breathing holes, and three red feet. The head is larger in proportion to the body, of a reddish colour, with a forceps, or pincer before, and a semi circular lip, with which they cut the roots of plants and suck out their moisture. They have no eyes, but are furnished with two feelers, which serve to direct their motions under ground. At the expiration of four years, these destructive insects prepare to emerge from their subterraneous abode. About the latter end of autumn, the grubs begin to perceive their transformation approaching; when they bury themselves deeper in the earth, sometimes even six feet below the surface, where they form capacious apartments, the walls of which become very smooth and shining, by the exertions of their bodies. Soon after, they begin to shorten themselves, to swell, and burst

their last skin, preparatory to their change into a *chrysalis*. This appears at first to be of a yellowish colour, which gradually heightens, till at length it becomes almost red. Its external figure clearly displays the characters of the future winged insect, all the fore parts being distinctly seen; while, behind, the animal seems as if wrapped in swaddling clothes. In this state, the young cock-chafer, or may-bug, continues for about three months longer; when, towards the beginning of January, the *aurelia* divests itself of all its impediments, and becomes a complete winged insect. But it has not attained its natural health, strength, and appetite: unlike all other insects, which arrive at their state of perfection as soon as they become flies, the cock-chafer continues feeble and sickly. Its colour is much brighter than in the perfect animal; all its parts are soft, and its voracious nature seems suspended. In this state, it is frequently found, and is erroneously supposed by those who are ignorant of its real history, to be an old one, of the former season, which has buried itself during the winter, in order to revisit the sun the ensuing summer. The fact is, the old one never survives the season, but perishes, in the same manner as every other species of insects, from the severity of the cold, during winter.

Towards the latter end of May, these insects burst from the earth, the first mild evening that invites them abroad: after having lived from four to five years under ground. They are then seen to emerge from their close confinement, no longer to live on roots and imbibe only the moisture of the earth, but to choose the sweetest vegetables for their food, and to sip the evening dew. An attentive observer will, at that time of the year, see every pathway strewn with them; and, in warm evenings of May, myriads of them are buzzing along, flapping against every thing that impedes their flight. The heat of the mid-day sun, however, seems to be too powerful for their constitution; they therefore, conceal themselves in clusters, under the foliage of shady trees, but particularly of the willow, which appears to be their most favourite food, and which they seldom quit, till they have consumed all its verdure. In seasons favourable to their propagation, they are seen in an evening, in considerable swarms; their duration, however, is but short, as they never survive the summer. They begin to pair, soon after they have emerged from their subterraneous prison; and the female then carefully bores a hole in the ground, with an instrument for that purpose, with which she is furnished at her tail, and deposits her eggs there generally to the number of sixty. In the year 1751 they were so exceedingly numerous in the county of Norfolk, England, that they destroyed not only all the verdure of the fields, but even the roots of vegetables. Many crops in that country were then almost ruined by the devastations these insects committed, in their worm state; and when they took wing next season, trees and hedges were in many parishes, completely stripped of their leaves. James Ebdon, a Norfolk farmer, made oath, that he gathered *eighty bushels*; but their number did not seem much diminished, except in his fields. Neither the severest frosts in our climate, nor even water, will kill them; as on being exposed to the sun and air, for a few hours, they will recover, and

resume their former lively state. One of the best methods to be adopted for preventing their transformation, is, to plough up the land in the furrows, to employ children to pack them up in baskets, and then strew salt and quick lime on the ground and harrow it in."

It is well known that swine, turkeys, hen-crows, and other birds have a high relish for both the may-bug and grub-worm, and whenever opportunity will permit, they will destroy immense numbers of those vermin. But as conceive, the employment of the hoe would be a more effectual method than has been as yet suggested. During the summer, or autumn when the grub-worm is feeding on the roots of grass and vegetables, not more than an inch or two below the surface, the task would not be very laborious one to go over the ground with hoes, and destroy every grub that can be discovered. Let a neighborhood of farmers unite their exertions in this service as a pastime, and they may probably enjoy the satisfaction of effecting in some measure, at least, the annihilation of the race, and free themselves for many years from the loss of crops by their devastations. In meadows, or pastures, where the worm has already destroyed the roots of the grass, and the sward, the hoeing may be performed with great facility, and perhaps in some instances it might be deemed useful, at the same time, to hoe in grain or grass seed for a crop. The method of intersecting the fields with ditches, has sometimes been serviceable, in checking a more extensive progress of these worms; they penetrate through the sides, and fall into the ditch where they may be easily destroyed.

J. T.

Plymouth, Oct. 16, 1822.

N. E. FARMER.

BOSTON:—SATURDAY, OCT. 26, 1822.

Awards at the Brighton Cattle Show.

We have given in this day's paper the whole of the Reports of the several Committees, to whom was entrusted the arduous and delicate task of awarding premiums for animals, manufactures, &c. exhibited at the last Fair, in Brighton. They are worthy of attention not only from those whose feelings or interest are involved in the amicable contest for the prize of agricultural or manufacturing excellence, but of all who have the interests of the husbandman and manufacturer at heart. They will prove useful by pointing out the path which leads to further improvement, and preserved in volumes, from year to year, (as we hope and trust they will be, at least by our subscribers,) will serve as indices to mark the progress of agriculture and the useful arts. Those who may hereafter become candidates for premiums, or disposed to add to the attractions of the "Husbandman's holiday," by voluntary exhibitions of articles or animals, rare, excellent or useful will derive advantages from knowing what has been exhibited, and will find the *Records of the Brighton Cattle Shows* not only curious but useful documents. We think that the judges who have awarded the premiums, by their able Reports, have deserved well of the community; and in bestowing honors and bou-ties, on those who merited the rewards of skill and industry, have reflected honor upon themselves. Alexander & a Bonaparte, in parcelling out kingdom among their favorite generals, were less honorably; well as less usefully employed than the distributors of premiums at an American Cattle Show.

SMUT IN WHEAT.

Much has been said and written on the subject of smut in wheat, and the different diseases, in grain, which among farmers in general are known by that name. Distinctions are made by scientific writers between smut and burnt grain, which we shall not undertake at present to point out, as both kinds of disorder are prevented or cured we believe by the same treatment.

The following rules will be of use. They are taken in substance from an Essay published in the Massachusetts Agricultural Repository, vol. v, p. 134.

1. Wheat is not to be sown on ground which has born smutty wheat in the year preceding. This would be bad policy if smut were out of the question, as two white crops should never succeed each other, which is against the rules of rotation in husbandry.

2. Manure tainted with smut should not be used for wheat land, unless it is made into a compost, in which lime is an ingredient.

3. When manure is used it should not be spread too thickly, but as evenly as possible.

4. Pure seed should not be left within the reach of infectious materials. This caution extends not only to avoiding the use of a threshing floor employed for smutty wheat; but that of tainted sacks, casks, and vessels for measuring wheat.

5. Wheat should be sowed early that the crop may ripen early, and it should not be kept back by feeding in the spring.

6. The seed should be of a good quality, not light, unripe, mouldy, bruised, or worm eaten.

7. None but good land should be employed in raising wheat, and land which admits of early crops.

8. Wheat should not be sown in very wet weather, even when the soil is dry.

9. A change of seed is recommended by writers on this subject, and few who are wise will procure worse seed to sow than that which they possess already.

10. The purest portions of the plants in a crop should be set apart for seed; and when ripe, these plants should be harvested by themselves, and the seed preserved apart in a safe place. This rule will commonly prove more important than the one preceding.

11. The thick sowing of wheat is improper, for the double reason, that it produces feeble plants, and dampness, both of which encourage smut.

12. No favorable moment for sowing is to be lost, nor is any unfavorable moment to be adopted from a supposed necessity of paying attention to the state of the moon.

The following receipt for preparing seed wheat, so as to secure it against smut, so far as smut depends on the seed, was published in France by M. Tillet more than sixty years ago, and is recommended by Du Hamel.

If the seed be spotted it should first be washed in several clear waters, till the black spots disappear. It is then to be steeped in the liquor immediately to be mentioned.

If the seed be not spotted, it is merely to be soaked in the following liquor: make some ley, by putting four pints of water to every pound of wood-ashes, according to the quantity wanted. If to 100 pounds of ashes, 400 pints (or 50 gallons) of water be added, the produce, when strained, will be 30 gallons of ley; to which must be added 15 pounds of quick lime. This will prepare nearly 17 bushels of wheat for sowing.

This liquor when wanted for use must be made as hot as the naked hand can bear it, and placed in a large tub. The seed being put in baskets, must now be plunged into it, and stirred with a stick; after which the liquor must be drained away. The seed

must next be laid on a floor, till dry enough to be sowed. If stirred from time to time with a shovel, to prevent its heating, it may be kept without damage for a month or even a year.

An English writer directs that "after the wheat is taken out of the pickling tub and laid on the floor, it should be well dusted over, and mixed with quick or caustic lime; and if turned over with a shovel, or stirred about with the teeth of a rake, it will dry faster and be sooner ready for sowing, and if ran through a barley or oat riddle it will separate better as it is sown.

Another mode of pickling is sometimes practised with success, by immersing the wheat into or sprinkling it over with stale chamber-ley, and afterwards dusting it over with quick lime. But there is danger of the wheat being injured by the strength of the chamber-ley; and the wheat pickled in this manner must be sown immediately after it is dressed, let the state of the weather be what it may; for if kept out of ground for a time its vegetative powers would be destroyed.

A Vermont Farmer has given us the following as his mode of preparing seed wheat:—I take three quarts of slacked lime,* to each bushel of wheat, put them into a barrel, a layer of wheat and a layer of lime alternately; then pour in water till it is all covered. In this situation let it stand from two to four days, as the case may require, [probably according to the temperature of the weather] and the morning before sowing the wheat tap the barrel and draw off the liquor.

Sir John Sinclair advises that "when the seed wheat is put into any liquid it should be run very gently thro' a riddle, when not only the smut balls, but the imperfect grains and the seeds of weeds will float and may be skimmed off at pleasure, which is not the case when the seed is put hastily into the water. The same water should never be used but once in washing wheat, even when brine is employed, it is safest to have fresh liquor for each parcel. Lime is not only of service to dry the seed, but by its caustic and anti-septic qualities, it tends to destroy putridity, and animalcula of every description."

In Young's Annals, vol. x, p. 231, are given the following experiments:

"December 7, 1787. Sowed fourteen beds with the same wheat seed, as black with the smut as ever I saw any.

1. Sown dry, nothing done to it, had	377	smutty ears.
2. Washed well in clean water, had	325	do.
3. Washed in lime water, had	43	do.
4. Washed in a lie of wood ashes, had	31	do.
5. Washed in arsenic and salt mixture, had	28	do.
6. Steeped in lime water four hours, had	12	do.
7. Steeped in lye four hours, had	3	do.
8. Steeped in arsenic four hours, had	1	do.
9. Steeped in lime water 12 hours, had	6	do.
10. Steeped in lie twelve hours, had	0	do.
11. Steeped in arsenic 12 hours, had	4	do.
12. Steeped in lime water 24 hours, had	0	do.
13. Steeped in lie 24 hours, had	0	do.
14. Steeped in arsenic 24 hours, had	5	do.

* Probably by "slacked lime" is not meant that which has become in any degree mild or effete, but lime which is taken from the kiln and brought by the application of water to a powdered state, and what is called by chemists Hydrate of Lime.

Prodigious Pear.—A pear grew this season in the garden of Jonathan Edmunds, in Framingham, which weighed THIRTY FOUR OUNCES.

The Greeks Victorious.—Translations from the Paris Constitutionnel of the 12th September, published in the Philadelphia National Gazette, give accounts of great victories gained by the Greeks over the Turks. The latter were defeated with great slaughter at Thermopylae, and at Trachis on the 20th of July, and the 6th and 7th of August.

Premium Hats.—The fine Beaver Hats, for which a premium of \$20 was awarded to Gerry Fairbanks, at the late Brighton Show, were manufactured by Mess. Dikeman & Shepard of Northampton.

Sweet Potatoes.—The New-Haven Journal states that a number of sweet potatoes was raised in a garden in that city the past season, among which was one weighing 3 lb. 2 oz.

Great Apple.—We have seen an Apple, which grew on the farm of Mr. James Field, of Chester, weighing 22 1-2 ounces and measuring 14 1-2 inches in circumference.

Bellows Falls Intelligencer.

American Manufactures.—General McClure made a bet of \$50, that he would take wool on the fleece and manufacture a suit of satinest cloth in ten hours. The bet was decided last Saturday in his favour, having completed the suit and put them on in eight hours and 45 minutes. The colour was a blue mixture; the wool was coloured in 35 minutes; carded, spun and woven in two hours and twenty-five minutes, fulled, knapped, dried, sheared and dressed in one hour and 56 minutes; carried in four minutes, three-quarters of a mile to Mr. Gilmore's tailor shop, who with the assistance of seven hands completed the coat, jacket and overalls, in three hours and 49 minutes; there was a half a yard of the cloth left, being in the whole 8 and a half yards, and of such quality as was estimated to be worth one dollar per yard. The General offers to double the bet that he will make a better suit in less than eight hours—and dares the advocates of John Bull's manufactures to take him up.

There was a great collection of people assembled on the occasion; Col. Barnard, with the officers commissioned and non commissioned, of his regiment, a full band of music, and many citizens escorted the General from the village to the factory, when after partaking of this worthy citizen's usual liberality, the procession returned to the village, the air resounding with many hearty cheers.—*Steuben and Allegany Patriot.*

The fall meeting of the Susquehanna Agricultural Society was held on the 9th inst. The premium for the greatest quantity of domestic manufactures produced in one family, was awarded to W. C. Turrell. His household have made upwards of sixteen hundred yards of different kinds of cloth, besides stockings and yarn sold. Sophia Rice received the premium for the best American Leghorn Grass Bonnet.—*Phil. Union.*

BROWN'S PATENT VERTICAL FAMILY SPINNER.

FOR SALE, at the Agricultural Warehouse, in Chambers No. 20, Merchant's Row, (opposite the East end of the Old Market)—a number of

Brown's Patent Family Wool Spinners,

which are found on trial to be one of the most useful domestic implements that have ever been invented for that purpose, being of so simple and easy construction that a girl of the age of 15 can well do the work of six persons in spinning, and so compact in its form as not to require so much space as a common family spinning wheel. The advantage of this machine over and above the common mode of family spinning, is at once tested in a few minutes operation with the machine; it at once discovers its immense saving of labor, its accuracy in spinning a good thread, and the quantity it will spin. It requires no further examination to judge of its utility than to see it operate. It is afforded at so low a price as to bring it in common use to every practical farmer, and is well calculated for the employment of the inmates of our common town's poor houses.—Any number of Machines can be furnished at the shortest notice, and warranted. Oct. 26.

From the Baltimore Morning Chronicle.

MR. ALLEN—When the recollections of childhood, its companions, cares and pleasures, come over the mind, they act on the imagination, as the soft, hazy, voluptuous atmosphere of an Italian sky does upon the corporeal faculties of man;—they soothe our most agitated moments, and, like oil poured upon the waves of a troubled ocean, they calm the tumult of the passions. I felt the force of these remarks very strongly, a few days since, and my feelings embodied themselves in the following lines, to a well known air.

When first in childhood's happy years,
Ere pleasure knew decline,
We wonder'd why the old shed tears
For Auld Lang Syne.

The future then, was spread with flowers,
Joy's sun did brightly shine,
And we thought not then of former hours
Of Auld Lang Syne.

Too young to know the pangs of life,
No woe could we repine;
For we wept no hours with trouble rife
In Auld Lang Syne.

And now, when clouds have dimmed our day,
When sorrows made us pine;
We cheer the gloom with a glimmering ray
Of Auld Lang Syne.

Tis a sun bright spot on "life's dark stream,"
Which gaily e'er shall shine,
And our happiest hour, is our longest dream
Of Auld Lang Syne.

Then fare thee well, 'till next we meet,
Affection wont decline;
And we'll talk, when then we fondly greet,
Of Auld Lang Syne.

Baltimore, Oct. 2d. WIZZARD & Co.

From the Charleston (S. C.) Courier.

To the Agricultural Society of South Carolina.

GENTLEMEN,

The following remarks from the recently published "Travels in New England, by President DWIGHT," (vol. 2, p. 92,) seem to be particularly interesting at the present time. If this valuable Beach Grass could be introduced into our state, there is no reason to doubt that it would flourish on our sea-coast; and it might, under the Divine blessing, at such places as Sullivan's Island, be the means of saving many valuable lives. It would be an object, too, of no small importance to prevent the farther diminution of those salubrious retreats. There could be no difficulty in procuring from Cape Cod, a sufficient quantity of the Grass Plants to make a fair experiment. T.

N. B.—Would not the Agricultural Society of Massachusetts, if applied to by our Society, furnish the Plants for an experiment?

BEACH GRASS—ITS UTILITY.

"On the dryest and most barren of these grounds grows a Plant, which I had never before seen, known here by the name of Beach Grass. This vegetable bears a general resemblance to sedge; but is of a light bluish-green, and of a coarse appearance. On these sands, sterile as they appear, it flourishes with a strong and rapid vegetation; and, I believe, not at all, or very rarely, on any other ground: and here one would naturally think nothing could grow.

"From a Mr. Collins, now an inhabitant of Plymouth, and formerly of Truro, I received the following information:

"When he lived at Truro, the inhabitants were, under the authority of law, regularly warned in the month of April (yearly) to plant Beach Grass, as in other towns of New-England they are warned to repair Highways. You will observe, that it was required by the laws of the State, and under the proper penalties for disobedience—being as regular a public tax as

any other. The people, therefore, generally attended, and performed the labor. The Grass was dug in bunches, in which it naturally grows; and each bunch divided into a number of smaller ones. These were set out in the sand at distances of three feet. After one row was set, others were placed behind it in such a manner as to shut up the interstices, or, as a carpenter would say, so as to break the joints. It was placed in this manner, in order to prevent the wind from having an open course through the Grass in any direction, lest it should drive the sand away. When it is once set, it grows of course, and spreads with rapidity. Every bunch enlarges, and, with its seeds, plants new ones around it. The seeds are so heavy that they bend the heads of the Grass, and, when ripe, drop directly down by its side, where they immediately vegetate. Thus, in a short time, the ground is covered. *Where this covering is found none of the sand is blown.* On the contrary, it is accumulated and raised continually as snow gathers and rises among bushes or branches of trees, cut and spread upon the earth. Nor does the Grass merely defend the surface on which it is planted, but rises as that rises, by new accumulations; and always overtops the sand, however high that may be raised by the wind.

"Within the memory of my informant, the sea broke over the beach which connects Truro with Provincetown, (the eastern end of which for three miles, is within the limits of the former township,) and swept the body of it away for some distance. The Beach Grass was immediately planted on the spot; in consequence of which the beach was again raised to a sufficient height, and in various places into hills.

"The wisdom and goodness of the Creator, exhibited in the formation of this plant, in this place, certainly claim the admiration and gratitude of man. But for this single, unsightly vegetable, the slender barrier which here has so long resisted the ravages of the ocean, had not improbably been long since washed away. In the ruins, Province Town and its most useful harbor must have been lost; and the relief which the harbor and the inhabitants furnish to multitudes of vessels in distress, and which no other place or people could possibly furnish, must have been prevented. No other plant grows on this sand. The purpose for which it seems to have been created, it answers easily, permanently and perfectly. Perhaps at some period, at a more advanced state of knowledge, when war shall have become less, and the advancement of happiness more, the object of human pursuit, uses of similar importance may be found for most, possibly for all, other objects—however useless they may be thought at present, and however neglected in the inquiries of man."

✍ The Editor of the New England Farmer will be much obliged to any friend or correspondent who will be so good as to furnish information relative to the above mentioned kind of Grass.

JOHN HANCOCK.

During the siege at Boston, General Washington consulted Congress upon the propriety of bombarding the town of Boston. Mr. Hancock was then President of Congress. After Gen. Washington's letter was read, a solemn silence ensued. This was broken by a member making a motion that the House should resolve itself into a Committee of the whole, in order that

Mr. Hancock might give his opinion upon the important subject, as he was deeply interested from having all his estate in Boston. After he had left the chair, he addressed the Chairman of the Committee of the whole in the following words: "It is true, Sir, nearly all the property I have in the world is in houses and other real estate in the town of Boston; but if the expulsion of the British army from it, and the liberties of our country require their being burnt to ashes, *issue the orders for that purpose immediately.*"

The Southern papers have announced "another" and "another act" of the Cumming and McDuffie farce. We hope that when the farce is over, these Falstaffs of the age will be permitted to retire from the stage of public life in the full enjoyment of that sovereign contempt of the American public, which they so eminently deserve.—Patriot.

U. S. LAW JOURNAL, No. 2.

EDITED BY SEVERAL MEMBERS OF THE BAR.

THE 2d No. of the "Law Journal and Civilian's Magazine," is just published by

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Review of the case of the Jeune Engenie, determined in the Circuit Court of the United States, held at Boston, December, 1821.

Penal Jurisprudence—Review of a Report made to the General Assembly of the State of Louisiana, on the plan of a Penal Code for said State; by Edward Livingston.

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Law of Corporations—Opinion of Chancellor Kent and of Judge Spencer, in the case of the North River Bank.

Law of Corporations—Remarks on the case of the Corporation, styled, "The Trustees of the Roman Catholic Society worshipping at the Church of St. Mary, in the city of Philadelphia;" by Richard H. Bayard.

✍ A Digest of all the late British and American Reports, which are not included in the present British or American Digests, is preparing for the third Number of this work.

✍ The 2d No. completes 300 pages, or half the first volume. Subscribers are respectfully reminded, that the terms of the work are \$5 the volume, payable on the receipt of the 2d No. of each; or \$6, if paid at the close of each volume. October 7, 1822.

THE FARMER'S ALMANACK.

RICHARDSON & LORD, 75 Cornhill, have This Day published, the old fashioned, genuine FARMER'S ALMANACK, for the year of our Lord, 1823, by ROBERT B. THOMAS, Esq.

✍ Booksellers and Traders, supplied by the quantity, as usual. October 7.

NEW ENGLAND FARMER.

Published every Saturday, by THOMAS W. SHEPARD, Rogers' Building, Congress Street, Boston; at \$2.50 per ann. in advance, or \$3.00 at the close of the year.

VOL. I.

BOSTON, SATURDAY, NOVEMBER 2, 1822.

No. 14.

DISEASE OF CATTLE.

Report on a disease afflicting Neat Cattle, in Burton, (N. H.) read before the New Hampshire Medical Society, June, 1822; by JAMES F. DANA, M. D. Prof. Chymistry, Mineralogy, &c. Dartmouth College.

At the last meeting of the Society, I had the honour to be appointed to visit the town of Burton in this State, and inquire into the causes of a disease to which neat cattle are there subjected; and I have now the pleasure of submitting to the Society the result of the observations which have been made in consequence of this appointment.

That part of the town in which the disease is most prevalent, is surrounded by lofty hills and mountains; the highest part of which is a very elevated point, called *Corway-peak mount*, and is visible from a great extent of country. The predominant rock of which these hills are composed is Granite—a soft decomposing variety in which the crystals and grains of feldspar, are very large and are suffering a rapid decomposition, by which the whole is disintegrated and broken down. The loose stones consist principally of rolled masses of granite, quartz, feldspar, and some specimens of hornstone; a bed of bog ore of iron is also found here. The soil of this place is fertile, and is such as we should expect to be produced by the decomposition and disintegration of Granite rocks, viz. a sandy loam mixed occasionally with coarse gravel. No peculiar appearances were noticed in the vegetation; the usual crops raised by the farmer, grow in Burton as in other places under a similar culture and management: and probably the town would be a flourishing agricultural place if neat cattle could be kept and raised there. The fact is sufficiently established that young neat cattle cannot be raised there, and that cows and oxen cannot be kept there for a number of years without being afflicted with a singular and fatal disease; and it is not a little remarkable, that horses and swine have never been attacked by the complaint. Cattle are more liable to the disease at some seasons of the year than at others, and are usually attacked by it at the close of winter. The symptom which marks its commencement and progress, is a loss of appetite; the animals refuse hay, grain, and salt; they become feeble and much emaciated; and obstinate costiveness accompanies the disease, but the abdomen becomes smaller than in health; the abdominal muscles are contracted towards the spine, and the whole abdomen is diminished to one third of its original bulk. After these symptoms have continued an indefinite time, a brisk scouring comes on, and the animals fall away and die. For this complaint, which is very general among those cattle which have remained two or three years in the place, no remedy has been used by the inhabitants with marked benefit and uniform success; the cattle recover only by driving them away to some other place. A satisfactory cause for the disease has not yet been ascertained, and consequently a rational mode of cure has never been adopted. Neglecting the romantic and idle tale of the dy-

ing curse pronounced on this place by a murdered Indian, we are to search for the cause of the disease in the food which the cattle eat, or in the water which they drink.

The fact that cattle are seized with the disease late in the winter seems to point to the food as a source of the evil; and it is well known that certain plants have proved prejudicial and fatal to cattle. The *cicuta virosa*, or water hemlock, was found by Linnæus to be the cause of a disease afflicting the cattle in Norway; and here goats and swine were exempted from the disease; but this plant was not observed in Burton, nor was any other vegetable discovered here which does not grow in other places in the same latitude; and hence we do not believe that the disease is caused by the food. In confirmation of this opinion, I may adduce the fact that the hay produced in this place, causes no disease in cattle which are kept on it in the neighboring towns; whereas hay which is brought from other places into Burton, does not appear to prevent the complaint.

It has been sarcastically suggested, that cattle died at Burton because there was not a sufficient quantity of hay produced there to keep them; but this suggestion appears to be as unjust as it is ungenerous. Hay is produced in such quantities as to be more than sufficient for the cattle. The result of my inquiries on this subject is, that there is a sufficient quantity of hay produced there for the use of all the stock, but that it does not contain any vegetable substance which is prejudicial to the cattle, and which may be considered as a source of the disease.

The examination of the water from various places in Burton offers a more satisfactory result; but there are no external marks which indicate that the water is unhealthy—no sediment is found, no incrustations appear on the sides of the rivulets and springs; but on the contrary the water is clear,* transparent and colorless, and of a pleasant taste. From such properties, I despaired of detecting any substances in it by the application of chymical agents, but was happily disappointed on making the examination. A portion of water from a brook, to which the cattle have free access, was first examined. Tincture of soap produced cloudiness; oxalate of ammonia produced a slight cloudiness; and nitrate of silver produced a similar effect.—No change occurred on the addition of Barytic water, solution of Prussiate of potash, or tincture of galls, or of turmeric. It follows from the action of these agents that the brook water, unlike the water of most brooks, is an hard water and contains some saline body.—From the action of oxalate of ammonia, we infer the existence of lime; and nitrate of silver proves the existence of muriatic acid; the water is then a weak solution of muriate of lime. Having ascertained the existence of minute portions of muriate of lime in brook water, an examination was made of the water procured from other sources; and

* It is a common remark that the waters of Burton are remarkably clear; probably their refractive density is increased by the saline matter they contain.

water from eleven other places, remote from each other and from the brook abovementioned, was examined, and the same effect was produced by the same agents. The effect was more perceptible in some instances than in others, and usually greater in water from wells than in that from other sources. The water from two wells in particular afforded abundant precipitates with the oxalate of ammonia and nitrate of silver. The only beast laboring under the disease while I was at Burton, drank daily from one of these wells.

The continued use of a weak and very dilute solution of muriate of lime, may from its known properties, produce the effect now ascribed to it, and be the cause of the disease. Muriate of lime, it is well known, is employed as a medicine, and, like other saline medicine, acts more powerfully on the general system in small doses largely diluted, than in greater quantities, and in a more concentrated state. In some diseases of the glands, it is said to have been employed with advantage, and when first administered, improves the appetite and general strength. The latter effect is very evidently produced on cattle when first pastured in this town. If previously thin and emaciated, they speedily become fat and appear better than cattle ordinarily do, during the first season they are pastured in Burton.

It may with propriety be asked, why horses and hogs escape the disease, if it is produced by the water? A satisfactory answer is derived from the fact that horses are not suffered to remain a long time at home; they are continually absent on journeys, and probably in most instances take as much water from other sources as they do from the wells and springs on the farms to which they belong. Hogs take but small quantities of water, and from the mixed and heterogeneous kinds of food given to them, they must frequently take such saline substances as will counteract the effects produced by the minute portions of muriate of lime.

If the disease arises, as is supposed, from the saline contents of the water, we can easily explain the fact that its attacks are most frequent in the winter. It is then that they usually receive water from wells, which are proved by experiment to be most strongly impregnated; and then also springs are generally low and consequently contain more saline matter: nor does the food in winter tend to counteract the effect of the water, by keeping the bowels lax, which is a well known effect produced by summer and spring food.

The disease, to which the cattle in Burton are thus subjected, has been a great obstacle to the prosperity of the town; and it will probably continue to have this effect, although without doubt it may be prevented by proper attention and management. Some persons, residing in Burton, have for several years past given to their cattle during the winter season, a certain kind of mud, and, as they affirm, with some benefit. This mud is found on a meadow, and during the summer, it is collected for use; it is made into balls as large as an ordinary potatoe, and forced down the animal's throat; by it the

tonic effect of the muriate of lime is prevented, and the bowels are kept lax. I visited the spot where the mud is procured.—A spring issues from the place and the water brings with it a greyish white matter which is deposited in the rill leading from the spring. This whitish substance is the matter in question. After being heated to redness it becomes snow white; when digested in an acid, a slight effervescence occurs, a portion is dissolved, and the remainder has the character of fine white silicious sand; the portion dissolved in the acid was found by appropriate tests to be *carbonate of lime*. The effect of this substance cannot be explained on chymical principles, and doubtless depends on the general principles, of the effect of laxatives in counteracting the actions of tonics.

Having embraced the idea that this disease arises from the small portion of muriate of lime dissolved in the water, I recommended to a number of the inhabitants who were assembled for the purpose of assisting me in my inquiries, to make use of *weak ley*, or *ashes*, or *soap suds*, as a remedy, or rather as preventives. Either of these substances, from the carbonate of potash they contain, will decompose the muriate of lime, and carbonate of lime and muriate of potash will result from such decomposition. Now both these substances, if not quite inert in the small quantities in which they would be produced, will act as purgatives; and as a confirmation of the general principles advanced in this paper, I was informed, on recommending *soap suds*, that the only cow which was ever raised in Burton and escaped the disease, was in the habit of frequently drinking soap suds from the tubs which contained it; and that it was consequently left for her use after family washings. It is not a little remarkable that the inhabitants did not avail themselves of the information to be derived from this hint.

A person who formerly lived in Burton brought water from a spring situated at a distance from his house, for the use of his cattle, and they were found to thrive much more, and with greater certainty to escape the disease. Why he was induced to use this water I know not; but on examination by re-agents, it gave indications of containing *very small* quantities of muriate of lime; much less quantity indeed, than in any other water submitted to examination.

These facts and observations are now submitted to the Society, with the hope that the investigation, conducted under their auspices, may not prove wholly uninteresting and useless.

ALBANY COUNTY AGRICULTURAL TRACTS.

By the politeness of J. BUEL, Esq. we have received a pamphlet, with the above title, containing much valuable matter, calculated to aid the American Farmer in the principal and staple concern of all civilized societies. The pamphlet is published by the Executive Committee of the Albany County Agricultural Society, who have "resolved to publish, annually, a pamphlet of about 48 pages, to be distributed at their annual fairs, among the members of the Society. It is believed," they observe further, "that this will essentially aid the progress of agricultural improvement; and as practical information is to be preferred, communications of this kind are respectfully requested for the subsequent numbers. They may be addressed to J. BUEL, Corresponding Secretary. The work will be so pagged and arranged that six numbers will form a volume of 288 octavo pages."

The articles which compose the first number consist partly of original matter, and in part of judicious selections. We shall, from time to time, give such extracts, notices and abridgments of the work as we believe will be most beneficial to our readers, and best comport with the patriotic and philanthropic views of the publishers.

ON THE CULTURE OF TURNIPS.

Sands and sand loams are peculiarly adapted to the culture of this root. The county of Norfolk, which is one of the most improved agricultural districts in England, has acquired its high reputation, in a measure, by its turnip crops. Cattle are winter fattened upon them invariably, with the aid of straw, or sometimes a little hay. The soil of that county was very similar, originally, to the pine district between the Cahoes and Coeymans. But our hard winters prevent our using this root with English economy. There they are left in the field, and drawn daily as they are wanted. Here they must be housed or buried, before the frosts set in. Notwithstanding this objection, I am satisfied, from four years' experience, that they may be cultivated by us with great profit, as a *cattle food*, particularly the Swedish sort, or ruta бага.

The flat turnip, of which the green and red top are varieties, is raised with very little trouble, and with me have been invariably a second crop. I have sown them after wheat, rye, peas, and flax, with a single ploughing, with and without manure, with uniform success. I have sown from the 20th July to the 10th Aug. broadcast, at the rate of one pound of seed to the acre—generally hoed them once; and the medium crop has been about 200 bushels per acre. *The later turnips are grown, the better they are for the table.*

The ruta бага requires more labour in raising, and better compensates for it. I plough twice and harrow; about the 1st July, the ground is thrown into three feet ridges, by turning two furrows back to back. The manure is then drawn out, and thrown with a shovel into the furrows, about six rows being dunged at a time. The manure is covered, by reversing the ridges, as soon as practicable; and when the whole field is finished, a light one horse roller is passed over lengthwise, which flattens the ridges and pulverises the lumps. The seed is then immediately dibbled in one foot apart. A man will make the holes, and two boys, of 10 or 12 years old, will drop the seed, and cover two acres a day. One to four seeds are put into each hole. I prefer the dibble to the drill, on account of the greater facility of clearing the crop, and because a dibble can be made in two hours by any farmer, and consequently costs nothing. When the plants are well up, I pass the cultivator between the rows, and hand hoe the ridges, for which the skim hoe is far preferable to the common hoe. If the ground is not very foul, they are as easily hoed as an equal quantity of Indian corn. As soon as the roots are as large as a goose quill, I thin them so as to leave but one plant in a place, and fill up vacancies by transplanting. After this, the cultivator is passed through them once or twice, and the weeds, if any, on the ridges, taken out with a hoe or the hand. The product has been from 400 to 600 bushels. To preserve the roots, dig about one foot deep upon the side of a hill, leaving the bottom inclining, and suffi-

ciently broad each way to be able to pile in the space, in the form of a cone, 100 bushels. Place the roots in it, and bring the top to a point as far as practicable. Cover with straw, and then dirt. They will bear considerable frost without injury. Take care to dig a trench round the mound to turn off the water. In March, or perhaps February, you may break through the frost, and take out roots, lay them on your barn floors, and cover them with hay or straw; from whence they may be fed to cattle.

The ruta бага is fed without cutting, to neat cattle—a bushel a day, without straw, is enough for a milch cow. To fat cattle, they may be given in greater quantity, though never so many as to occasion a continual looseness. Hogs will feed and fatten on them; cut small, they are remarkably fitted to fatten sheep; and the horse, once accustomed to them, will prefer them, to his grain. For all animals, they are improved by steaming or boiling. In the north of England, it has been stated, that stage horses are kept upon steamed ruta бага, without grain. A gentleman in Dutchess wintered more than fifty hogs upon them thus prepared, and the swine did well.

My experience with the globe and Scotch yellow turnips, is not sufficient to enable me to speak satisfactorily of their culture; but I have both kinds growing luxuriantly.

J. BUEL.

J. ALEXANDER, Esq.
Sec'y of Albany Co. Ag. Society.

ON THE CULTURE OF MILLET.

Millet is cultivated both for grain and fodder. If exclusively for the latter, it is cut as soon as it attains its growth, before the grain begins to ripen; if for both, as soon as the major part of the seed is ripe,—otherwise the birds will eat and waste a great portion of it. The stock and leaves remain green and succulent, even when the seed is all ripe. The best way to harvest the crop is, to cut it with a sickle or cradle; and as soon as it is sufficiently dry, bind it in small bundles, thresh it immediately without unbinding the sheaves, and use the straw for winter fodder. It improves the latter to have it sweat in the mow. The product is from ten to forty bushels in seed, and from one to four tons in fodder, according to the quality and cleanness of the land. The seed is stated, by gentlemen who have made accurate experiments, to be equal to Indian corn for fattening hogs; and the stock or straw is preferred by neat cattle to clover. The objection to this crop is, that it is an encourager of the growth of weeds, from its slow growth in the early stage of its vegetation. The ground should be clean, and in good heart.

I sowed millet this year, at four several times. The first, 23d April, which was harvested about the 1st August: the second, 27th May—harvested 21st August: the third, 1st June—harvested 10th September. The crops were all good. When intended wholly for fodder, I think it may be sown as late as the 10th July. From my experience in two years, I would recommend that the ground be ploughed early, that the seeds of weeds may vegetate; that the ploughing be repeated at intervals, and the crop be sown from the 1st to the 10th June. Cut entirely for fodder, it is a very nutritious

food. Sow from 12 to 16 quarts to the acre, and cover the seed with the harrow.

There are five species of this grain spoken of in the Domestic Encyclopedia, three of which I have had growing in my garden, this year, viz.

1. The *panicum*, or common millet, which is grown extensively in India, and of which it is a native.

2. The *panicum germanicum*, cultivated extensively in Germany and the South of Europe, where it is hulled in mills adapted to the purpose, and thus prepared, is used extensively for puddings, &c. Either of these kinds will do for field culture, and they are believed to be varieties of the same species.

3. The botanic name I have not ascertained, but in common language the third species is called the *chocolate millet*, from the circumstance of its seeds, prepared like coffee, making a beverage similar to chocolate. It grows similar to broom corn, and the grain is black.

J. BUEL.

J. ALEXANDER, Esq.

Sec'y of Albany Co. Ag. Society.

From the Worcester papers of Wednesday.

Believing that an essential improvement might be made in the breed of Swine in this vicinity, I have turned my attention to this object. I have bred from the first quality of our native stock; but have found the produce variant and uncertain in form, size and propensity: some improved, and others deteriorated. I have crossed with more reputable breeds; but did not obtain that fleshy form and disposition to fatten upon light keeping, most valuable to farmers who supply the market, and families who supply themselves.

In 1820, I examined the pens of Mr. John Reed, of Roxbury, who, by the agency of Col. Pickering, had procured a breed from England. As he was raising and fattening upon a large establishment, having, as estimated, 13 tons preparing for market, I had an opportunity of viewing them in their various stages. From their appearance and his account of them, I was satisfied of their excellence, and obtained the kind. They may be seen in possession of Capt. Munroe, Mr. Butman, Maj. Burt, and Mr. Rufus Porter. One of the kind was exhibited at our last Cattle Show by Mr. Gleason, who obtained the first premium.

It being suggested by the Committee on Neat Stock, the last year, that the breed might be improved by crossing with a coarser kind, I wrote to Mr. Reed on the subject, and received the following statement:—"I have often tried the experiment of crossing with a coarser breed of hogs, and as often found my hogs to degenerate; but when I have crossed with small-boned hogs, it has answered well. My hogs are of the Bedford breed, so called in England; and experience has proved, to my satisfaction, that this breed is far the best that has been introduced into our country. They are quiet in their nature, fat easy and with little expense or trouble. I have had some weigh, at 12 months old, about 340 lbs.; and a considerable number, at 18 months old, 400 lbs."

I have distributed two litters of the kind, and have the third now ready for disposal.

O. FISKE.

Worcester, Oct. 28, 1822.

From the American Farmer.

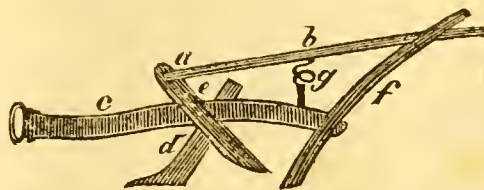
A PLOUGH CLEANER.

Downingtown, Pa. 7th Month 14th, 1822.

Respected Friend,

I have received thy acceptable letter, and really wish that I could add to the merits of thy work, by "frequent mental contributions," as thee desires me to do. But I feel great delicacy in venturing any remarks among the able productions of thy correspondents. And I know so little of the theory of Agriculture, that my observations must necessarily be confined to a few practical matters, such as might occur to any one who has been raised as a plain farmer.

I will, however, now give thee a description and drawing of an appendage to the plough, which I have used for several years, and found very convenient; it is a "plough cleaner." I very recently exhibited the contrivance before the Philadelphia Agricultural Society, and it was approved by their Committee on Implementations.



The staff B, rests towards one end on the coupling round of the plough handles; at the other end it has a mortice, A; to receive the upright E; they are connected by a pin, so as to work like a hinge.

The upright E, is placed three inches before the coulter D, and joined to the beam, C, by a screw bolt, which may be passed through either of the three holes in the upright, so that its range can be adapted to the depth of ploughing.

The front edge of E is made a little circular, to prevent its acting as shears; G represents a circular thin steel spring, screwed on the beam and tied with a string to the staff, B. The whole contrivance is placed on the land side of the plough.

The ploughman, when he wishes to use it, grasps the staff with his left hand, and drawing it backwards causes the lower part of E to advance and rid the coulter of whatever had collected about it. The spring, G, will then restore the upright and staff to their former positions, ready to be used again.

I am with much respect thy friend,
JOSEPH KERSEY.

From the Village Record.

The following communication from Mr. Sharpless, of Downingtown, is worthy of attention. The experiment for the preservation of Peach trees from the worm, we earnestly recommend to those who have the means of trying it; and we shall be obliged by being informed of the effect. We shall also esteem it a favor if any one will give us information how to preserve the Morella cherry from the fly which is so rapidly destroying it. Mr. Sharpless has our thanks for his note; we hope he will continue his observations and give us the result.

Downington, Pa. 10th Month 10th, 1822.

Esteemed Friend,

I had observed to a friend, that I thought it a pity that the Peach, which was so highly esteemed in its season for its agreeable flavor as well as wholesomeness, could not be cultivated with that success they formerly were.

He remarked that he had heard of an accidental discovery which had been made to prevent or destroy the worm.

A Fuller who had been colouring cloth with the shells of walnuts—after having extracted the colouring property from them threw them out by the root of a Peach tree which stood near his Mill, it appeared to be on the decline, the consequence was that the tree revived and grew luxuriantly; this induced him to suppose that the shells contained something destructive to the worm, he therefore applied them to other trees with equal success.

As it is now the season for gathering the Walnuts, I have thought it right to communicate this information to the public that the experiment may be made.

I have discovered that the worm which has injured our Peach trees, like the Hessian fly has passed from East to West. I was in the Redstone country 22 years ago, the trees then, had not been injured by them—about 12 years after, was there again, when the trees were almost all destroyed; and for 15 or 20 miles West, beyond that they were fine and flourishing—7 years afterwards passed through the western part of the state into Ohio, found the worms had progressed westwardly as far as Mt. Pleasant, and but a few miles beyond; this was 3 years since, from hence I concluded that the fly which generates the worm moves on a few miles every year. This I think is the case with the insect which has within a few years affected the Morella Cherry trees, which are now nearly all destroyed. The first I saw of their effects on those trees, was in the neighborhood of Germantown, not more than 7 years ago, I think it was 3 years before they reached this part of the country.

From the Providence Journal.

Rhode-Island Silk.—Isaac Barker, Esq. of Middletown, in this state, now in this town, wears a very handsome silk vest, which was wholly produced and manufactured on his own farm. He has made silk for three or four years, commonly about thirty pounds a year, when prepared for spinning, and, we are happy to learn, finds it a profitable business, which he thinks may be extended with ease and advantage. We doubt not, the farmers of the state might easily make enough of this valuable article to supply our own consumption. Thus, one after another, are the resources of our country brought into view, and rendered valuable. The time was, when it was thought hardly practicable to procure a woollen hat, of domestick manufacture. The time may be, when we shall export silk stuffs, as we now export cottons, by bates and cargoes!

An extensive establishment for repressing Cotton is now rising at Mobile. The building is 226 feet in front, by 130 deep. There will be, exclusive of horse presses, a powerful Hydraulic Press, which is calculated to press 270 bales a day. There are to be two fire engines attached to the premises; and four wells will be excavated on the ground. The proprietors of this establishment are Messrs. Lepetre & Townsley. The expense of the undertaking it is calculated will be about 50,000 dollars.

Statesman.

FACTS AND OBSERVATIONS RELATING TO
AGRICULTURE & DOMESTIC ECONOMY.PROFITABLE AND RESPECTABLE EMPLOYMENT FOR
YOUNG MEN.

Extracted from an "Address of the General Committee of the Board of Agriculture, for the State of New-York, to the Officers and Members of the County Societies."

"To those resolute young men, who, having discovered that there is no longer room for them in the professions and in commerce, and are not afraid to look to the ample bosom of nature for their support, the committee would advise, that, having completed their education (for education is a great protection and solace in the indolent hours of the country) they place themselves with some opulent farmer, for three years, to learn the practical and fundamental principles of his art. These they can learn at his expense, and can repay him for his care by their industry and fidelity. At the expiration of that period they can, if they have a moderate capital to begin with, establish themselves with great prospect of success. Some capital, however, is necessary; to own a bare farm and nothing but that, is only an embarrassment of a different kind; a moderate capital is essential to put it in operation and make it productive. It is the want of that capital which has caused agriculture, as an art, to be so long stationary in this country. The accession of every intelligent family and person to the country is a substantial acquisition. By multiplying and spreading intelligent persons over the face of the state, the condition and happiness of society will be rapidly improved; and experience will teach them, what it has already taught to others, that it is not only possible to be truly contented in the country, but to have no wish for change."

TO PREVENT BEES FROM BEING DESTROYED BY THE
WORM.

Set each corner of the hive on a piece of wood about an inch square and a quarter of an inch in thickness. This elevates the hive a little and prevents the deposits of the eggs which produce the worm, and which are always placed where the edges of the hive come in contact with the bench.—*Amer. Farmer.*

TO PRESERVE CATTLE FROM DISEASE IN THE WINTER.

When cattle are kept out in the winter, it is recommended as a useful practice to rub some tar at the root of the horn, which prevents the wet from getting between the root and the skin, and it is said contributes to preserve the health of the animal, and to keep it free from various diseases to which it may otherwise be liable.

ibid.

AGRICULTURE, COMMERCE AND MANUFACTURES DEPENDENT ON EACH OTHER FOR PROSPERITY.

Extracts from Mr. Law's Address to Prince George's Agricultural Society in Maryland.

"That consumers for our agricultural products should increase with augmenting food, &c. you will acknowledge is most desirable, and that the consumers should be rather at home than abroad, as they must be adding to the wealth of the nation by their products of industry, given in exchange for the products of the soil, will, I trust, be granted; for double industry is thereby obtained, and our country is ren-

dered independent of foreign nations for clothing, furniture, iron mongery, crockery ware, glass, &c.

"An apprehension I am aware is prevalent, that foreign commerce will be diminished by manufacturing for ourselves; but much deliberation makes me conclude that it will increase, as well as the coasting trade. The only truly desirable commerce consists of the exchange of our indigenous products in a raw or manufactured state for the products of foreign climes, and it is evident that we shall bring back more silk, coffee, sugar, tea, spices, wine, &c. as increased industry enables us to export more.

"It is proved by Mr. Colquhoun, that poor rates are heavier in a country merely agricultural, than in one whose inhabitants are merely manufactural. The reason is obvious. When the head of a family is sick or dies, who is a cultivator, his wife and children become paupers; but if he be a manufacturer, his wife and children can be employed in factories. Humanity and patriotism therefore dictate, that a nation ought not to be merely agricultural.

"In sea-port towns manufacturers are particularly desirable, as they support the wives and children of absent sailors. Poverty causes crimes and vices, and I have observed that there were fewer vagabondising boys, and fewer wretches in jails and poor houses, in manufacturing sea ports. The moralist and statesman must therefore be advocates for this last state of society."

In order to make butter in cold weather, it is recommended to pour as much boiling water into the cream as will bring it to the temperature of milk just from the cow. Cream so managed, says a writer in the *American Farmer*, will require very little churning, and no other disadvantage accrues, except that the butter will be white for a day or two.

WASHING RENDERED EASY.

For the use of private families, where linen is dirtied by perspiration or grease, it will be of great service towards rendering it white to steep it for some time in a clear liquor, made by mixing one quart of quick lime in ten gallons of water, letting the mixture stand 24 hours, and then using the clear water, drawn from the lime. After the linen has been steeped in this liquor, it should be washed as usual, but will require much less soap to be used.

Rees Cyclopaedia, art. Bleaching.

WARM WATER FOR COWS.

It has been said that cows will give the more milk in cold weather in consequence of having the water which they drink made a little warm.

MODE OF PRESERVING POTATOES AND FRUIT.

Put the potatoes into barrels, and fill up the numerous crevices with fine sand, which will exclude the air, and preserve them from injury. This method may likewise be applied to apples, pears, &c. If they should be penetrated with frost, they will sustain no injury if the frosty particles are extracted by putting them in cold water.—*English Magazine.*

Boiling corn for hogs is recommended, and there can be no doubt but it will afford more nourishment when cooked, than when raw. It is thought to be best to boil it on the cob, which will add to the nourishment afforded by

the grain. Steaming would doubtless answer the same purpose.—*Plough Boy.*

SPOILED POTATOES.

When it happens that a parcel of potatoes are so far destroyed as to be unfit for food of either man or beast, even after they are reduced to the consistence of soft soap, by frost or wet, there are two ways by which they can be rendered useful, either in the manufacture of nitre, or converted into a rich manure.

To make nitre, beat up the spoiled potatoes with dry quick lime, mixed with ashes from the hearth. Let the mixture be turned over, sprinkled with water, and exposed to the atmospheric air, for the further absorption of azote. The formation of nitre may be ascertained by washing a little of the mixture in water, and moistening therewith a slip of brown paper, which will become match paper when dry, and burn with a force proportionate to the strength of nitre. When sufficiently strong the whole mass can be washed, the liquid boiled down for chrysalization, and the sediments thrown to the dung-hill; or the brine can be used with common salt for the preservation of meat, for pickling wheat, or any other purpose to which saline preparations are generally applied; or will be found particularly useful for washing dirty clothes.—*Minerva.*

WEEPING WILLOW.

A writer in the *American Farmer* has the following observations:—"From a remark I met with many years ago, that 'in Priestley's opinion, the Willow was the greatest absorbent and corrector of bad air,' I have planted them all round that part of my rice field, which is nearest my dwelling and negro settlements.—My people are very healthy, and although I move from hence to Smithville, ten miles down the river, six weeks or two months later than my South Carolina friends do from their rice plantations, and later than any one in the neighborhood of Wilmington, who has a summer residence—and although I visit it almost weekly through the fall, I experience no inconvenience. In my 66th year, I do not recollect having kept my bed a whole day in my life."

PAINTING WALLS TO MATURE FRUIT.

Mr. Daws, of Slough, near Windsor, (Eng.) has made the experiment of painting one half of a wall black that was covered with a vine, and leaving the other half in its common state. That part of the vine which covered the black wall, ripened the grapes earlier, and yielded about three times the weight of fruit that the other produced.—*Pomarium Britannicum.*

CATTLE STALLS.

Extract from Hon. Timothy Pickering's Address to the Essex Agricultural Society.

The common cattle stalls of our country are so ill contrived and so straitened in their dimensions, that the cattle are constrained to lie down, in part, in their own dung. This dries and forms a thick coat on their hind quarters, from which they are not relieved till they shed their hair in the spring. They are thus rendered *uncomfortable*. To be uncomfortable is to suffer some degree of *pain*; and no one will suppose that animals in *pain* can *thrive*, or *preserve their plight*, with the same food, equally with others perfectly at ease. Even hogs, tho'

come to wallow in the mire, in warm weather, are always pleased with a dry bed, and thrive best when kept clean.

BEST SHAPE FOR CATTLE.

To the question, "What is the shape for feeding well with little food?" Mr. Knight, (a gentleman in England, eminent for his knowledge and accurate observations relative to plants and animals) answers, "The more deep and spacious the chest, and the shorter and lower the animal is, relative to its weight, the better adapted it will be to live and fatten upon little food; the more labor it will also go through; and I have always found the most short legged oxen to be the best laborers. Mr. Marshall also observes, in his Rural Economy of Gloucestershire, that the best laboring ox he ever saw, had the shortest legs."—*ibid.*

SWEET APPLES, &c.

"After providing a due proportion of apples for the table, and the ordinary purposes of cooking, I do not hesitate to express my opinion, that for all other uses, sweet apples are entitled the preference. The best cider I ever tasted in this country, was made of sweet apples. They afford also a nourishing food to man and all domestic animals. What furnishes a more delicate repast than a rich sweet apple baked and eaten with milk?—I recollect the observation made to me by an observing farmer, before the American revolution, that nothing would fatten cattle faster than sweet apples. Mentioning this, few years since, to a gentleman of my acquaintance in an adjoining state, he informed me, that he was once advised to give sweet apples to a sick horse. Happening then to have them in plenty, the horse was served with them, and he soon got well: and continuing to be fed with them, he fattened faster than any other horse he had ever owned (and he had owned many) at was fed with any other food.

"Mentioning to the same gentleman, what I had long before heard, that good molasses might be made of sweet apples, he confirmed the fact by an instance within his own knowledge: and he further expressed his opinion, (and I have not known a man whose practical judgement was entitled to more respect) that it would not be difficult, by forming orchards of sweet apples, to supply molasses for the general consumption of the United States. I have never tasted any sweet apple molasses; but I suppose it has not (or has honey) the rich sweet of molasses from the sugar-cane; yet, for family uses in general, it would be a useful substitute for the latter. The process in making it I suppose to be very simple. The apples being ground, and the juice (or cider) expressed, at the cider-mill, it is immediately boiled, (that is, before any fermentation takes place) and the scum being taken off as it rises, the boiling is continued until the liquor acquires the consistence of molasses.

"Sweet apples are of different degrees of sweetness. Those of the richest kinds should be chosen for the purpose of making molasses. In grafting, the cions should be taken (as they ought to be for all kinds of fruit) not from old, worn out trees, but from those whose originals are in full health and vigour. For it has been satisfactorily ascertained in England (and proofs of it are not wanting in our own country) that fruit trees have their infancy, (springing

from seeds) youth, maturity, and old age; and that when they have reached this last stage, it is in vain that attempts are made to continue them. Or if the cions take, and grow for a few years, they are unproductive, and soon decay. The reason is plain; every cion is a part of the tree from which it is taken; and if this be in a state of decrepitude, so will be the cion; and although grafted on a youthful, thrifty stock, it will be of no avail."—*ibid.*

TO MAKE A PICKLE OR BRINE FOR BEEF.

To eight gallons of water add half a pound of salt petre, one pound of brown sugar, and one quart of molasses, with as much fine salt as will make it float an egg light, taking care that the salt dissolves lest it be too strong—skim it well and it is fit for use.

Your beef or tongues should be put in cold water and remain 24 hours, then drained for an hour or two, previous to being put into the pickle.

Beef tongues, veal, or mutton for smoking should not remain longer in pickle than ten days.

This pickle need not be boiled, (which operation tends to harden the meat) but will remain perfectly sweet till spring, when, after your beef is used or taken out, it will be found the very best in which to cure shad, giving them a delicious flavor, and fine red colour throughout.

This receipt is offered with confidence to the Editor of the Farmer, as one of the very best ever adopted. And it is the opinion of the writer, will answer fully as well for pork, with the exception that the latter should not be soaked in water.—*American Farmer.*

MANNER OF PRESERVING EGGS PERFECTLY FRESH FOR TWELVE MONTHS.

Having provided small casks like oyster barrels, fill them with fresh laid eggs, then pour into each cask, the head being taken out, as much cold thick lime water as will fill up all the void space between the eggs, and likewise completely cover them. The thicker the lime water is the better, provided it will fill up all the interstices, and be liquid on the top of the cask. This done, lay on the head of the cask lightly. No farther care is necessary, than merely to prevent the lime from growing too hard, by adding occasionally a little common water on the surface, should the lime appear to be growing hard, and keeping the casks from heat and frost.

The eggs, when taken out for use, are to be washed from the adhering lime in a little cold water, when they will have the appearance and qualities of fresh laid eggs, the lime preserving them from shrinking or putridity.—*ibid.*

TO PRESERVE HAMS, OR OTHER SMOKED MEAT, THROUGH THE SUMMER.*

Wrap up the meat in tow, of either flax or hemp, after shaking out the loose shives, and pack it in a tierce or barrel, taking care that there be next the tierce and between every piece of meat, a thick layer of tow packed in as close as possible; then set it away in a dry cellar or upper room. It is enough that the

*This has been tried and found to answer well, says the Editor of the Albany County Agricultural Tracts.

barrel or tierce be sufficient to keep the mice out, as no fly or insect will enter the tow.

Tow and flax are such bad conductors of heat, that a piece of ice will be preserved a long time wrapped up in tow. Cut straw also answers extremely well to keep hams in. Ashes are apt to communicate a bad taste to meat. Care should be taken to prevent the flies from having access to the meat before being packed away.—*Archives of Useful Knowledge.*

PRESERVATION OF BUTTER.

One part of loaf sugar, one part refined salt petre, two parts of the best pure salt are to be pulverized together and kept for use; one oz. of this is to be mixed thoroughly with 16 oz. of the butter as soon as it is freed from the butter milk; it is then to be put into a close and perfectly clean dry vessel, from which the air is to be carefully excluded, and it will remain good for many years.—*Johnson's Animal Chemistry.*

CATTLE SHOWS, &c.

BROOKLYN, (Con.) October 21.

Windham County Cattle Show.

The Windham county Agricultural Society held its Cattle Show and Fair, in this village, Wednesday the 9th of October inst.—The first exhibition was the ploughing match, which began at 9 o'clock. Nine teams were entered; the quantity allotted to each team, was one eighth of an acre. This being the first exhibition of the kind in the county, excited great interest, and afforded much satisfaction, to both ladies and gentlemen, assembled to witness it. The team of Mr. Chaffee, of Canterbury, performed its work in the short space of twelve and a half minutes; Mr. Gregg's team of Pomfret, in fourteen minutes; the team of Mr. Spencer, of Hampton, being one pair of two years old, and one pair of yearling steers, in eighteen and a half minutes, in a handsome manner. All the teams showed they were managed in a masterly style, in the performance of their work, and the whole was executed much to the credit of the owners. After the ploughing match, the society assembled in the meeting-house. Prayers by the Rev. Mr. Fowler, of Plainfield, a member of the society. An address was delivered by Elisha B. Perkins, Esq. of Pomfret, much to his credit, and to the satisfaction of the Society. After the exercises at the meeting-house, the society, honoured by delegates from Rhode-Island, and honorary members of the society, proceeded to view the animals and articles offered at the exhibition; and at 2 o'clock, partook of an excellent dinner, provided by Capt. Mather.

Mr. Erasmus Stebbins, received premiums for the best pieces of broadcloth and cassimere.

A very fine team of about 100 oxen, from Woodstock paraded through the street, and did much credit to the enterprising spirit of the farmers of that town.

The annual meeting of the Rockingham, (N. H.) Agricultural Society was holden at Exeter on the 16th and 17th of Oct. By a vote of the Society last year, the custom of meeting in the spring for the choice of Officers, &c. was abolished, and it therefore became necessary to appropriate two days, instead of one, to the business of the Society at its fall meeting. The

recent anniversary being the first under the new arrangement, it was not to be expected that the exercises and exhibitions could be divided between the two days with so much convenience and satisfaction to the public, as can be done hereafter with the aid of experience. These complaints will doubtless be obviated at the next anniversary.

The exercises of the morning were followed by dinner served up for the Society on the lower floor of the Court House, under the direction of Col. Burley, in his usual style of elegance and abundance. The beautiful and appropriate decorations given for the occasion to this spacious room attracted crowds of admiring visitors, and gave an acceptable pledge of the welcome, which the Society will ever find among the citizens of Exeter.

Among the most prominent articles of manufacture were the specimens of Carpeting offered by Mr. Theodore Moses and Miss Martha Gilman, of Exeter, and Mr. Kent, of Chester. The filling in that of Mr. Moses was wholly of woollen rags; the beauty of the piece attracted much praise. The hearth rug offered by Miss Sophia Smith of Exeter, was much admired, and was highly creditable to her taste and industry. A pair of Morocco Shoes were exhibited by Mr. Lewis Wentworth of Exeter, made from the skin of a sheep, *which was living ten hours and thirteen minutes* before their exhibition in the Court House. They appeared to be well and skilfully manufactured. A beautiful grass indispensable, and a handsome basket, made of musk-melon seeds, were exhibited by a *young lady of Portsmouth*; and a neat silk purse, knit by Mrs. Brown of Kensington, *who has been blind seventy-seven years*. Twenty apples, exhibited by Capt. Nathaniel Paul, of New Market, weighed 21 1-4 pounds; they were natural fruit from one tree, and of good flavor. Two apples were exhibited by that skilful horticulturist, Nathaniel Adams, Esq. of Portsmouth, being the first and second growth of a tree in his garden. The apple of the first growth was of a large size, and that of the second weighed more than six ounces. Some apples, in fine preservation, the growth of 1820, were exhibited by Rev. Isaac Hurd, of Exeter.

Gen. Samuel M. Richardson was chosen President, and Gen. Elias H. Derby, V. President.

The thanks of the Society were unanimously voted to the Hon. Nathaniel Gilman, (who had held the office of President the three last years) for his faithful, assiduous and valuable services. The Rev. Joel Abbot was appointed Orator for the next anniversary, and Nathaniel A. Haven, Jr. Esq. of Portsmouth, was chosen for 1824, who will deliver the Address at the next anniversary, in case of a failure on the part of Mr. Abbot.

The second day was devoted to the exhibition of cattle, the trial of the strength of the working oxen, the auctions, and the reports of the different examining committees. A very interesting report was read before the Society in the morning, by Ichabod Bartlett, Esq. Chairman of the Committee on *butter, cheese, wine and cider*. This report will be published at length.

Among the animals, most worthy of notice, was a fine imported cow, owned and exhibited by Col. Joshua W. Pierce, of Portsmouth, very remarkable for extraordinary size and beauty. Her girth was over seven feet; her weight

probably exceeded fifteen hundred pounds; and all the distinguishing marks of a good cow were seen in full perfection in this beautiful animal. The bull of Gen. Derby, of the Holsten and English breed, and the bull of the Whidden breed owned by Captain Nathaniel Gilman, of Exeter, well entitled their owners to the premiums which they received. The yoke of fat oxen (weighing 2200 lbs. each,) the cow and heifers, of the improved short horned breed, exhibited by Capt. Nathaniel Gilman, the fine bull of Mr. John Thompson, of Stratham, a yoke of uncommonly large two year old bulls, of Seth R. Shackford, Esq. of New Market, the large calf of John Moulton, of Exeter, the bull calf of Mr. Wells, of Hamptonfalls, remarkable for its rapid growth and fine shape, and a yoke of Steers of Henry Butler, Esq. of Nottingham, were very much admired. A team of several yokes of strong and beautiful working oxen, from Kensington, gave interest to the exhibition, and reflected great credit upon that town, distinguished as it has long been for its excellent farmers. The sow and pigs exhibited by Col. Walker, of Exeter; the swine by John Gordon, of Exeter; and the quarter blooded sow of the Cobbet breed, owned by Col. Chadwick; and the boar of the same breed of William Lane, of Exeter, remarkable for the shortness of its legs and snout, and its depth and thickness, were much commended by the committee. Several excellent Colts were exhibited; and the Stud Horse of Jonathan Clark, Esq. of Northwood, was pronounced worthy of premium.

In the *trial of strength*, the yoke of working oxen, (five years old,) drew the load, which weighed upwards of *sixty three hundred*, up Spring street, with apparent ease. They were immediately put upon the drafts facing the load, and managed it well. The yoke of working oxen, owned by Mr. Samuel French, of Nottingham, drew up the same load, and exhibited uncommon strength and good training. The lead was drawn up by the oxen of Samuel Dearborn, and Dearborn Blake, Esq's. of Kensington.

This part of the exhibition was followed by a trial of the *strength of the purse*, on the floor of the Court House. The butter of Bradbury Robinson, of Greenland, which obtained the first premium, was purchased at 47 cents per pound, for that warm and steady friend to the agricultural interest, Capt. Morris of the U. S. Navy; and the lot of Biley L. Thing, of Brentwood, which obtained the second premium, was sold for 42 cents a pound, to James Rundlett, Esq. of Portsmouth.

Abridged from the New Hampshire Patriot.

THE FARMER.

BOSTON:—SATURDAY, NOV. 2, 1822.

ON SAVING AND MAKING THE MOST OF MANURE.

(Continued from page 87.)

In our former observations on this subject, we protested against the uncleanly, unthrifty and unhealthy practice of permitting decaying vegetable or animal substances to waste away on any part of a farmer's lands or tenements, without the application of earth, peat, or some similar matter to absorb the steam, effluvia, or gaseous products of putrefaction. Those products, we observed, though exceedingly noxious, as well as offensive to man and beast, are healthy and

nourishing to plants. The farmer, therefore, who rests the rank vapors which emanate from decaying animal and vegetable matter, and instead of permitting them to pass into, and contaminate the air breathes, treasures up the invisible particles, which they are laden, and applies them to feed useful vegetables, causes the air to be healthy, and his plan to be thrifty by the same means. "If we consider the subject of manure, we shall perceive one of the most striking beauties and benefits of divine ordination, and of that wisdom, with which we are blessed in a thousand ways, without knowing it. This very substance had it been useless, must have accumulated in heaps intolerably noisome, and perpetually pestilential; but by the blessing of providence, it is every man's interest to remove those otherwise increasing mountains of filth and by decomposition, in various ways, in a great measure concealed from us, it gives increase to our fields and adds to the means of industry, and the reward of the husbandman."*

Those who cultivate the ground do not always take the wise and provident part supposed by Lord Erskine in the sentence just quoted. On the contrary, farmers too often suffer manure to accumulate and waste in heaps, generating effluvia "intolerably noisome, and perpetually pestilential," without fear of fever or famine, both of which are courted by such conduct. Not only dung is allowed to waste its richness on the tainted air, but straw, and other litter is suffered to grow mouldy and consume by what is sometimes called dry-rot, (both of which might be prevented, or the bad effects obviated, by covering or mixing them with a suitable quantity of earth) but dead animals, contents of privies, the emptyings of sinks, spoiled provisions, the refuse of the dairy, the pantry, and cellar, are allowed to mingle their odors in nauseous and deleterious profusion. Sometimes the highways rendered very delectable in consequence of a dead horse, sheep, dog or cat undergoing the process of decomposition in a situation most correctly calculated for the accommodation of passengers, and to afford farmers and his family the full fruition of their fragrance. Some farmers hang dead lambs, cats, dogs, &c. in the forks of apple trees or other trees, or throw them on hovels or stumps at some elevation from the ground to give the pestilential emanations a good chance to diffuse themselves, without coming in contact with the earth, which might convert them from poison for man and animals into food for vegetables. If, however, such animal remains are deposited in a barn yard or a manure heap, (which seldom happens among good fashioned farmers) they are suffered to lie and on the surface, offending the senses and injuring the health perhaps of a whole village. Practices of this kind are reprobated by Sir Humphrey Davy, who says "Horses, dogs, sheep, deer, and other quadrupeds that have died accidentally, or of diseases, after their skins are separated, are often suffered to remain exposed to the air, or immersed in water, till they are destroyed by birds or beasts of prey, or entirely decomposed; in this case most of their organized matter is lost from the land in which they lie, and a considerable portion of it employed in giving out noxious gases to the atmosphere.

"By covering dead animals with five or six times their bulk of soil, mixed with one part of lime, and suffering them to remain for a few months, their decomposition would impregnate the soil with soluble matters, so as to render it an excellent manure; and

* Extract from a speech of Lord Erskine, delivered one of the annual Sheep-shearings, at Holkham, England.

ing a little fresh quick lime with it, at the time of removal, the disagreeable effluvia will be in a great measure destroyed; and it might be employed in the same way as any other manure to crops.*" If however quick lime cannot readily be obtained to celebrate the conversion of dead animals into manure, is probable (though we do not assert it as fact) that covering the carcasses with a pretty thick coat of unslacked ashes, and placing over all a quantity of earthy substance, would hasten decomposition, and cure the gases resulting from putrescence. Earth, one, however, will answer a valuable purpose, and time the largest animal will be decomposed, if buried in nothing but common soil; and the latter will serve as a store house, and preserve the products of the former for the use of the crop to which it may be applied.

Not only the carcasses of animals, but their excrements and urine are rendered of little value by long exposure to the air. Indeed every moment of such exposure robs them of some part of their fertility, as well as contaminates the atmosphere. "He who is within the sphere of the scent of a dung-hill, (says the celebrated Arthur Young) smells that which his crop could have eaten if he would have permitted it. Instead of manuring the land he manures the atmosphere; and before his dung-hill is finished he has manured another parish, perhaps another county." As few exhalations as possible ought to be suffered to rise from the excrements of animals. Fresh manure should be kept as carefully from the sun and rain as grass which has been cut for hay. When cattle have been stabled over night it would be well to throw their evacuations into small heaps or beds, and cover them at least with a sufficient quantity of earth to prevent fermentation, or absorb its products. This would cost but little labor, and would be so neat and healthy as well as economical, that we are confident farmers will adopt it.

Mr. Young says, "The first object which I have attended to for many years, has been to spread a layer of earth over the surface of the yard; peat is the best for this purpose, with a portion of marl or chalk; in the want of this turf, rich mould, the scourgings of ditches and some marl or chalk; but not so much of either as to form so solid a bed as to prevent the penetration of the fluids, which should enter sufficiently to give a pink color to the whole. There is no necessity for moving this every time the dung is removed. As there are no advantages from fermentation in the manure carried on to the land, no attention should be paid to prevent treading and pressing it. But as it is beneficial to have the whole as equal as possible, it is very useful that the stable dung should be spread over the surface, and not left to accumulate at the door. The same observation is applicable to the riddance of the stable bullock stalls and the hog sties."

It is the fashion among our farmers, and was formerly in vogue in Great Britain, to turn over and mix barn and manure several times before it was carried to the field. This practice however is exploded among the best informed cultivators. Mr. A. Young says, "No turning, or mixing, or stirring; but if circumstances of the richness, or quantity, or weather, have occasioned too much fermentation, or this is suspected, scatter very now and then a quantity of the same earth over the surface with which the yard was bedded, but not in layers. This may be so proportioned as to keep the mass from too much fermentation."

The author of "Letters of Agricola," says, "Earth is a powerful absorber of all the gases which arise from

putrefaction. The earth possesses the property not only of retaining the putrid steams which are formed from the dung of decomposing bodies within itself, but also of attracting the effluvia when floating in the air. The salubrity of the country depends on this latter quality; as the practice of burying the dung under the furrow is founded on the former. The stench proceeding from the dissolution of organized matter never rises through the ground to assail the nostrils, although it is sufficiently offensive from bodies, corrupting in air or water. A strongly dunged field, after being ploughed, sown and harrowed, sends forth a healthful and refreshing smell—a proof that all the putrid vapors, which otherwise would annoy us, are absorbed and retained for the nutrition of the crop. It is on this account that the poorest earth can be enriched in a very high degree by mere exposure to the gases of putrefaction. Put a layer of common soil along the top of a fermenting dung-hill from 12 to 13 inches thick, and allow it to remain there while the process is carrying on with activity; and afterwards separate it carefully from the heap, and it will have been impregnated with the most fertilizing virtues. The composts, which of late have attracted so universal attention, and occupied so large a space in all agricultural publications, originated in the discovery of this absorbing power of the earth, and in the application of it to the most beneficial of purposes. A skillful agriculturist would no more think of allowing a violent fermentation to be going on in his dung-hill unmixed with earth or other matter, to fix and secure the gaseous elements, than the distiller would suffer his apparatus to be set at work without surmounting his still with the worm to cool and condense the rarefied spirit, which ascends in evaporation. In both, the most precious matter is that which assumes the æriform state; and to behold it escaping with unconcerned indifference, is a demonstration of the most profound ignorance."

(TO BE CONTINUED.)

The *Hampshire, Franklin and Hampden Agricultural Society* held their annual Cattle Show, &c. at North Hampton, on Wednesday and Thursday of last week. The exhibitions (says the *Gazette*) were more interesting than on any preceding anniversary, and attracted a greater concourse of people. An appropriate and excellent Address was delivered by Mr. MILLS, of Southwick. A more particular account of this exhibition will be given next week.

Grand Agricultural Speculation.—It is stated as a fact in the *Poughkeepsie Journal*, that A. S. Pell, Esq. of Hyde Park, N. Y. has growing on his farm upwards of sixty thousand Apple trees, nearly fit to set out. He intends to transplant the trees on about seven hundred acres of rich land in Ulster county, and to raise the fruit, which is chiefly of the kind called the Newton Pippin, for exportation.

At the Brighton (Mass.) exhibition, a Straw Hat was shown, manufactured in Vermont, and thought to be finer than any ever imported. It was sold for eighty dollars. The fair manufacturer was more fortunate than a Miss Nancy Bradley, of Ballstown, (N. Y.) who exhibited at the Saratoga Fair, a Straw Hat, on which she had spent three months. The Saratoga bonnet was equal in quality to No. 53 of Leghorn hats, which sell from \$60 to \$70; but Miss B. only received 13 dollars in premiums from the Agricultural Societies, and 25 dollars from the purchase of her bonnet.—*Phil. Union.*

The National Intelligencer intimates that a piratical establishment has lately been founded in Porto Rico, and states that among the persons embarked in it are several respectable American citizens, and youths of good family, who are thus setting not only the laws of their own country, but the law of nations at defiance. "We have some curious particulars," says the Intelligencer, "of this expedition, which for the present we reserve."

We have nothing new respecting the Greeks and Turks, which can be depended on. There is reason to believe that the former are gaining ground, and to hope that they will at length be emancipated from Turkish thralldom.

It is said that the Congress of Sovereigns will not interfere in the affairs of Spain. The calling together of an Extraordinary Cortes in Spain has been decided on. General Elio has been condemned to death and executed for having formed a conspiracy against the constitutional government.

In France, several editors of newspapers have been convicted of giving false and seditious narratives of the trials of conspirators at Rochelle. Some have been punished by fine and imprisonment.

Health of New York.—On Saturday last, the Board of Health in New York published a note, congratulating their fellow citizens that there was no new case, nor a death of yellow fever to be reported on that day. They recommend to their fellow citizens that previous to occupying their houses they be well ventilated, cleansed, white-washed, &c. That quick lime be strewed in the cellars, yards and privies, fires lighted in the apartments, and acid fumigations made use of.

In New Orleans Yellow Fever reigns in frightful malignity. A letter to the Editor of a Baltimore paper dated Sept. 26, states that "of a population liable to take it, not exceeding 700, exclusive of negroes, the daily deaths have averaged 20," and the day before the date of the letter the deaths were 31.

As a proof of the utter desolation which prevailed in the infected district, the N. Y. Statesman mentions that beans have been plucked from vines growing in Liberty-street, and water-melons from two to three inches long, from vines which grew in Greenwich-street! They are the product of seed thrown out by the inhabitants before they were driven thence by pestilence, and which took root in the scanty soil between the paving stones.

Mr. S. Rogers of New-York, has equalled the British Manufacturer in weaving a shirt whole and perfect.

Thanksgiving Day.—This religious festival is to be celebrated in this State, Maine and Vermont, on Thursday the 5th of December next. In New-Hampshire and Connecticut, on Thursday the 28th of November.

It is said there will not be more than 5000 hds. sugar made in Louisiana the present season. 10 or 12000 bales old cotton remained.

BROWN'S PATENT VERTICAL FAMILY SPINNER.

FOR SALE, at the Agricultural Warehouse, in Chambers No. 20, Merchant's Row, (opposite the East end of the Old Market)—a number of

Brown's Patent Family Wool Spinners,

which are found on trial to be one of the most useful domestic implements that have ever been invented for that purpose, being of so simple and easy construction that a girl of the age of 15 can well do the work of six persons in spinning, and so compact in its form as not to require so much space as a common family spinning wheel. The advantage of this machine over and above the common mode of family spinning, is at once tested in a few minutes operation with the machine; it at once discovers its immense saving of labor, its accuracy in spinning a good thread, and the quantity it will spin. It requires no further examination to judge of its utility than to see it operate. It is afforded at so low a price as to bring it in common use to every practical farmer, and is well calculated for the employment of the inmates of our common town's poor houses.—Any number of Machines can be furnished at the shortest notice, and warranted. Oct. 26.

NATHANIEL DEARBORN...ENGRAVER,
HAS removed to Market Street, No. 33, over Mr. Bailey's Store, West corner building of the stone steps passage way.

Orders for Engraving and Printing Address or Visiting Cards; and engravings on Wood, Brass, or other metals solicited. Door Plates of any style and price, of Brass, Silver or Silver-plated. Nov. 2.

* *Agricultural Chemistry.*

BY T. G. FESSENDEN.

"Better is a dinner of herbs where love is, than a stalled ox and hatred therewith."

Love relishes the coarsest fare,
And makes the bitterest morsel sweet;
But hatred taints the viands rare
Of those who exquisitely eat.
If anger, envy, discontent,
Lower o'er your delicate repast,
You'd better in the woods kept lent,
With nought but nuts to break your fast.
Sooner than sit at meat with pests,
Where smother'd hate torments the mind,
Let hungry Harpies* be your guests,
Like those that with the Trojan's din'd.
On beggars' fragments dine and sup,
Your beverage draw from Sodom's lake,
Or seek from 'Tantalus' cup,†
Intolerable thirst to slake.
The poorest pot-luck, serv'd with smiles,
And eaten with a thankful heart,
Is better than your roasts and broils,
And all French cookery can impart.
Thus Daniel, and his friends of yore,
Who made on pulse their simple feast,
For comeliness were rank'd before
The pamper'd minions of the East.
For love can relish coarsest fare,
And make the bitterest morsel sweet;
But hatred taints the viands rare
Of those who exquisitely eat.

* Harpies were winged monsters of heathen mythology, who invited themselves to a family dinner with the Trojans. Their intrusion is thus described by Virgil:

Tum litore curvo
Extrinusque toros dapibusque epulatur opimis,
At subita horrendo lapsu de montibus adsunt
Harpia et magnis quatunt clangoribus alas,
Diripiuntque dapes contactuque omnia fœdant,
Immundo.

Then on the winding shore the tables plac'd,
We sate indulging in the rich repast;
When from the mountains, terrible to view,
On sounding wings the monster-harpies flew,
They taint the banquet with their touch abhor'd,
Or snatch the smoking viands from the board.

PITT.

† The Cup of Tantalus is a philosophical contrivance, so denominated from a character in fabulous history, called Tantalus, and said to be king of Phrygia. This personage was condemned by Jupiter to suffer perpetual hunger and thirst amidst a profusion of delicacies, which always receded when attempted to be applied to his lips. To imitate this punishment a cup is made with a syphon fixed inside in such a manner that when nearly filled with any liquid, if one inclines it a little for the purpose of drinking, the syphon draws off the contents; which appear to recede from the lips, as if in mockery of the person attempting to drink from the Cup of Tantalus.

From the Old Colony Memorial.

In Rees' Cyclopaedia, under the article *Cock Chaffer*, is a perfect description of the insect which has committed such unprecedented devastation on the vegetable productions of the earth in a greater or less degree through this county. "*Cock Chaffer*, the *Scarabæus melolontha* of Linneus, and *melolontha vulgaris* of Fabricius.* The color is testaceous brown, with the thorax hairy; tail inflected, and a triangular white spot at each incisure of the abdomen.

* When in the beetle state.

"Inhabits the northern parts of Europe, and is highly injurious to agriculture.† The larva is soft and gray, with the head and legs protected by a shelly covering of a yellow brown color. While in the larva state, which continues for the space of three years,‡ it devours the roots, corn, and other vegetables. This mischievous creature subsists also on leaves and tender buds of trees, and is from that circumstance denominated the *tree-beetle*."

"They are eagerly sought after, and devoured by crows, rooks, and other birds, as well as animals; it is the larva of this insect that is so frequently turned up in ploughing, and in quest of which the crows are often seen following the track of the ploughshares."§

In Willich's Domestic Encyclopedia, under the same article (*Cock Chaffer*) is a more detailed and minute description of the insect, agreeing in all the essential points with the preceding; so that to my mind, the insect that has annoyed us so extensively, is identified with the larva of the *Cock Chaffer*; and what remains for us, is, I think, to endeavor to devise the means to destroy the enemy, or so to counteract its ravages, in some degree to render it innoxious.

In the first place, I will suggest the policy of ceasing our hostility to the crow, and the rest of the feathered tribe which subsist on the larva, and grubs of such insects as prey on our fields; and even to extend to them the protection of legislative provision. It is true they are an impudent and mischievous race, and are frequently trespassers on the cultivated fields of the husbandman; but their mischief is limited to a few days after planting, and seldom extends to the ripe corn, as they have at that time other means of subsisting; and should they be driven to resort to our corn fields when nearly ripe for the harvest, is it not far easier to guard against the ravages of an enemy, tangible and that announces his approach by the sound of trumpet, than against the one which is invisible, is preying at the roots of all our hopes, of all our means of subsistence, and in such "innumerable multitudes as no man can number."

The Editor of the Cyclopaedia remarks, "the crow feeds on grain and sometimes trespasses on cultivated fields; but his good services overbalance those little depredations, in the extirpation of the maggot of the *Chaffer Beetle*, which feeding at the roots of the corn, would oftentimes destroy whole crops, were they not

† This applies to the early period of its existence; as it increases in size it becomes whiter, and when fully grown is perfectly white, or yellowish white, except its head and legs which retain their primitive color, as also a small spot on each side at each incision of the abdomen.

‡ In the Domestic Encyclopedia the author says—"more than four years"—again, "in the latter end of May they burst from the earth after having lived from four to five years under ground."

§ This applies in England where they are in a degree cherished, and are so tame as to build on the ornamental trees of halls and seats; in this country they are a persecuted race, and are rendered so shy of man that they can rarely be approached so as to be shot.

P. S.—Those of the larva which are half grown or less have disappeared, probably gone deeper into the ground; the full grown remain stationary—just under the sod, are very heavy and inactive—probably about changing to the chrysalis state; and when they emerge from that state I presume they will assume neither the form or costume of the "moth or butterfly," but that of the beetle.

destroyed by these *useful birds*." It is also marked by Mr. Marshal, in his Rural Economy of Norfolk, "that the method of frightening rooks in practice there, is simply to stick up tall bough in the field infested, and to fire a gun near the place; this simple expedient seldom fails of being effectual; they being seldom shot at in Norfolk; where a notion prevails that rooks are essentially useful to the farmer, picking up worms and grubs, especially the grub of the *Cock Chaffer*, which it is believed frequently injurious to the meadows. This opinion also prevails in other districts, as they are often seen to follow the plough close, pick up such grubs."

In confirmation of this opinion, I will state the fact, that this season, since the prevalence of this grub, there are now in this town, (at a small distance from the habitation of men) acres that were in the state of sward the last spring which are now so turned up by the crows as to look like skunks, that they have the appearance as if they had been a pasture for hogs.

The second expedient I will suggest is that of making free use of the plough; although cannot be anticipated as a security, it will not be without its use. The *Cock Chaffer*, guided by instinct, avoids the ploughed ground to deposit its eggs, and has recourse to the sward affording greater security for them and more certain subsistence for the larva; in proof of this we observe, that the crops of corn and potatoes on those fields which were in tith last season, and more especially those which had been two years under cultivation, have received little or no injury, while those that were broken up from the sward are nearly or quite destroyed. I am aware this can be only an expedient to secure a crop, but not a means of extirpation of the insect; it is impracticable to plough to the extent of their ravages; but as our fields must be the next season, necessity and prudence will compel the farmer to cultivate more than he would have done under other circumstances; therefore any field that is destined for cultivation the ensuing season, it be ploughed this autumn—it will open to the view of the bird of prey many of the grubs that are now the tenants of the soil—it will prevent a new deposit of eggs—and perhaps interrupt the whole economy of their system, and discover their plan of security, as they appear to be a dull and heavy moulded race, incapable of exertion or expedient; and should the plough effect little or nothing as regards the destruction of the insect, the farmer does not lose labor or expense; he will find himself amply rewarded in the amelioration of the soil, and the abridgment of his labor in that season when he is fully occupied. PLYMOTHEUS.

In passing through the north part of the town, the other day, we observed a chestnut tree, on which there were ripe chestnuts, a tree was in blossom for a second growth. On noticing this fact, an old gentleman in company stated that he saw fresh strawberries in his meadow a day or two before.

Lake Guardian.

The difficulties formerly existing in crossing the Connecticut, at Saybrook, are now removed by the operation of a safe and commodious Team Boat.

NEW ENGLAND FARMER.

Published every Saturday, by THOMAS W. SHEPARD, Rogers' Building, Congress Street, Boston; at \$2.50 per ann. in advance, or \$3.00 at the close of the year.

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No. 15.

FACTS AND OBSERVATIONS RELATING TO AGRICULTURE & DOMESTIC ECONOMY.

The American Farmer of August 30, 1822, contains a letter from Professor Green, of Nassau Hall, Princeton, N. J. on the insect, commonly called the Hessian Fly, and a fly called Ceraphron, which sometimes destroys the Hessian Fly, in which are the following remarks:

"I fear the amateurs of Natural History will be able to assist but little in the extermination of so formidable an enemy to our wheat crops, as the Hessian Fly. If the devastations made by this insect are ever arrested, it will in all probability be done by the practical farmer."

"There is a curious fact connected with this subject, not generally known to farmers, and which has led to some little mistakes. There is a fly, called the *Ceraphron*, by naturalists, which is often seen in swarms among the wheat about the same time the depredations are made by the Hessian Fly. This insect is not quite so large as the other, and may be distinguished from it by the wings, which are four in number; the common fly being furnished with two only. The *Ceraphron*, so far from being injurious to the crops, is a great protection to them; for it deposits its egg within the body of the larva or germ of the Hessian Fly, which it eventually kills for its own support; so that whole crops of wheat which might otherwise have been destroyed are thus saved. After the *Ceraphron* has deposited its eggs, their wings are thrown off, so that it appears like the common ant; and this curious fact has led many to believe that the Hessian Fly is nothing more than a species of that insect."

VIRTUES AND USES OF ELDER.

Extracts from *Pomarium Britannicum*, an Historical and Botanical account of Fruits known in Great Britain—by Henry Phillips.

"Sir J. E. Smith has remarked, that this tree, as it were, a whole magazine of physic to rustic practitioners.

"The bark, leaves, flowers and berries, are used with advantage in medicine. The leaves are said to be purgative and emetic, and are applied externally for the piles and inflammations; an ointment is made also with them as well as the flowers; the latter are used inwardly as a carminative.* Infusions made from the flowers while fresh, are gently laxative and aperient;† when dry they are found to promote the cuticular secretions,‡ and to be particularly serviceable in erysipelatous and eruptive disorders.§ Sydenham directs three handfuls of the inner bark to be boiled in a quart of milk and water, till only one pint remains, of which one half is to be taken at night and the other in the morning; and this repeated every day for those afflicted with the dropsy. Boerhave recom-

mends the expressed juice of the middle bark, given from a drachm to half an ounce, as the best of hydragogues,* when the viscera are sound.

"Elder-flower water, the oil of elder, and elder-syrup are also used as medicines.

"The berries are esteemed cordial, and useful in hysteric disorders; and are often put into gargarisms for sore mouths and throats.

"The fungous excrescences, which are often found growing on the trunk of the elder tree, bearing the resemblance of an ear, black in the inside, and of a whitish color on the outside (called *auricula Judaeorum*) are accounted good for inflammations and swellings of the tonsils, sore throats and quinsies.

"The wine made from elder berries is too well known by families in the country to require any encomiums; it is the only wine the cottager can procure, and, when well made, is a most excellent and wholesome drink, taken warm before going to bed. It causes gentle perspiration, and is a mild opiate; and may be taken safely, and with advantage, by those of costive habits.

"If a rich syrup be made from ripe elderberries and a few bitter almonds, when added to brandy it has all the flavor of the very best cherry-brandy.

"The white elder berries, when ripe, make wine much resembling rich grape wine.

"The buds and the young tender shoots are greatly admired as a pickle.

"The leaves of the elder tree are often put into the subterraneous paths of moles, to drive those noxious little animals from the garden. If fruit trees, flowering shrubs, corn, or other vegetables, be whipped with the green leaves of the elder branches, insects will not attack them. An infusion of these leaves in water is good to sprinkle over rose buds, and other flowers, subject to blights and the devastations of caterpillars."

FATTENING HOGS.

Steam or boil potatoes with oats or pea meal and while hot pound or mash them fine, and have several tubs or vessels to receive them in. Before they are given to swine let them become thoroughly sour, and they will cause them to fatten much faster, and on a less quantity than when they are fed with food which has not fermented and become acid.

RULES OF HUSBANDRY.

Extracts from an Address to the Essex Agricultural Society, by Andrew Nichols, Esq.

1. Cultivate no more land than can be thoroughly ploughed, well manured at once, and kept free from weeds.

2. Never keep land many years under the same crops.

3. Never lay land into grass, except it be well prepared, and in a very rich condition.

Suppose for example you possess a field of arable land, containing eight acres; how can it

* Medicines which purge watery humors.

† Jews Ears.

* Wind-expelling, and promoting insensible perspiration.

† Opening.

‡ Separation of fluids from the skin.

§ Diseases of the skin.

be most advantageously managed? According to the author who lays down the foregoing rules, plough up annually, in autumn, two acres. Let it be cross ploughed, harrowed, highly manured, planted with corn or potatoes, and well tended the following spring and summer. In the spring next following, plough it twice, and sow it with grain and clover. In this way, by keeping the land in rotation, one year under Indian corn or potatoes, one year under English grain, and two years under clover, it would produce the most abundant crops, and be continually growing better, as the large tap roots of the clover especially would greatly ameliorate and enrich the soil. After going through this routine several times, the land would be in an excellent condition to lay into grass, thus to remain till another portion of land could be treated in the same manner. Keeping in view these principles, every farmer can readily apply them to other crops, which it is therefore unnecessary to mention.

IRRIGATION.

Falls of water have been estimated in England to be worth as much for watering the land, as for mills and factories. It is well known that even the temporary streams formed by the melting snows in the spring, if caused to run a few weeks over dry, gravelly soils, will render them highly productive of grass the whole season. Yet our brooks and rivulets are suffered not only to run to waste, but even to render barren extensive tracts of land in their vicinity. Wherever there is a fall of water running through land suitable for the purpose, let it be divided, and carried as high on each side as it will run freely; throw the intermediate space into ridges about twenty feet wide; along the top of each let a small stream of water be passed occasionally; give the whole a dressing of ashes, or lime; and it will produce the most abundant crops of grass, without any further expense. Admitting therefore that the expense of preparing land in this manner should amount, in the first instance, to a hundred or even to two hundred dollars an acre, it would still prove cheaper than most mowing land which can be kept productive only by frequent expensive manuring. Such land would contribute the whole of its productions to enrich the other parts of the farm; a consideration of no little importance in estimating its value.—*ibid.*

THE WILLOW.

Advantages may be derived from planting low, rocky or boggy lands, which are generally covered with alders and other useless bushes, with common willows. These trees not only produce wood, (which when dried is better than white pine,) faster than other trees, but greatly meliorate boggy soils, and bring in a better kind of grass, which makes excellent pasturage.— They serve to shelter the cattle, while feeding, from the exhausting effects of a burning sun. They prevent rapid evaporation, and probably attract showers; consequently increase the size of adjacent streams, and thereby fertilize soils far beyond the reach of their shadows. Besides,

whatever grows out of the soil ultimately returns to it again, to afford food for other plants which succeed. Consequently the more any soil can be made to produce, the more that, or some other in the neighborhood, will be enriched. Do any doubt the correctness of these theories? Why has Palestine, or the holy land, which once flowed with milk and honey, and supported by its own produce, on an extent of territory not exceeding that of Massachusetts, seven millions of people, become so barren as scarcely to be able to preserve a few thousand miserable wretches? Why has the river Jordan, once, undoubtedly, a noble stream rolling thro' fertile vallies, been reduced to a small brook, winding its way through a sandy desert? You will perhaps answer, the malediction of the Most High rests upon it. True, but the Almighty effects his purpose through the agency of natural causes. It was overrun by victorious armies, and vegetation was destroyed; exposed to the direct rays of the sun, the soil itself disappeared, the springs were dried up, and fertilizing showers became less and less frequent. The same process is now going on in our naked pastures, many of which, that a few years since were well clothed with grass now produce little or nothing but moss.—*ibid.*

Farmers generally would make their pursuits more profitable if they were careful to send to market the best articles, in the neatest order. Good butter, good cheese, good fruit, good cider, good pork, beef and mutton, will always sell, even when the market is glutted with inferior kinds of the same articles. The difference of the expense of raising or preparing the best, and the more ordinary kinds of these commodities, is often very trifling. The butter, for instance, is often bad, rancid, and almost worthless. Yet such bitter costs almost as much, perhaps often more, than it would to have made it of the best quality. Butter should always be made, salted and preserved by rule. Despire not, therefore, directions on this subject found in books; for it is impossible always to make good butter, if it be carelessly worked over, and salted as chance directs. The difficulty of making good butter, and of sending it uninjured to the market, in the hottest weather, may be easily obviated. For, with very little trouble or expense, ice may be kept in a common cellar the whole season.*

By selecting good, sound apples, and properly managing the liquor during and after fermentation, Cider can be made without addition, possessing a fine flavour, and in strength equal to about one fourth its quantity of proof spirit.

* In the middle or one corner of the cellar may be built a bin. Throw down some boards, and cover the bottom with straw; or, what is better, the spent bark of tanneries, generally known by the name of tan, in sufficient quantity to leave it a foot in thickness under the necessary pressure. In the month of February or March, go to the most convenient pond of fresh water, and obtain a sufficient quantity of ice, cutting or sawing it up in blocks as large as can be conveniently handled, and pile it up as compactly as possible in the bin, leaving a space of one foot or more all round it; fill this space, and cover the whole with tan or straw, and the ice, unless the cellar be uncommonly open, will keep the whole summer. Two men, and one pair of oxen, will perform all the labour necessary to lay in such a store of ice in one day. Around this ice let the pans of milk be set, and place the pots of cream and butter upon it. Place two or three pounds of ice in each box when the butter is conveyed to market.

By the addition of about twenty pounds of sugar to a barrel of common cider, as it comes from the press, it will fine itself, keep for years, even on the lees, without souring, and be much improved in strength.—*ibid.*

CATTLE SHOWS, &c.

NORTHAMPTON CATTLE SHOW.

The Hampshire Gazette of the 30th ult. contains the General Report of the Executive Committee of the Hampshire, Franklin and Hampden Agricultural Society, respecting the late Cattle Show. It occupies almost seven columns of the Gazette. We can only give the following abridged sketches of its contents.

The premiums awarded the present year, including those awarded upon Horses at a meeting of the Executive Committee in the town of Greenfield, in the month of May last, but without reference to those offered for the greatest quantity of grain and other articles of produce upon a given extent of land, are one hundred and sixty-six, and amount to seven hundred and thirty-six dollars. The committee on Manufactures was composed of Gen. Jacob Bliss, Col. James Shepherd and Mr. Erastus Clarke. The two former only attended to the discharge of the duties assigned them, the latter gentleman being absent.

The first objects of premium referred to that committee were blue woollen cloths, and woollen cloths other than blue, both required to be 3-4 of a yard in width, and cassimeres. Upon these three descriptions of articles, eleven premiums were offered, and seven only awarded. Thirteen specimens were exhibited, and six excluded from consideration of the committee in consequence of their deficiency in width. Of twelve pieces of undressed flannels likewise only two pieces were of the requisite width, and only two premiums awarded, though five were offered. Those undressed were required to be five quarters, and those dressed 5-8 of a yard. The sub-committee recommend the weaving of flannels for fulling at least five quarters wide, and remark that by weaving our flannels of that width we gain 20 per cent. in the operations of weaving and dressing, and at the same time great advantage in the facility and saving with which it is worked. Of dressed flannels five specimens were presented, and two premiums awarded. The two which were denied the premium were left out of consideration, in consequence of their want of width.

Of the linen sheetings, shirtings and diapers exhibited, the committee speak in terms of high commendation. Upon these three different kinds of articles 19 premiums were offered, and 17 specimens presented. The committee awarded a number of small gratuitous premiums upon specimens of webbing, linen hose, silk hose, travelling trunks, chairs, merino wool hats, and other small articles, such as a screw plate, guage, and a number of hammers, all beautifully wrought. They also awarded a small premium to Mrs. Chloe Strong, a venerable lady, more than 80 years of age, who offered for exhibition eight pieces of linen sheeting, containing 42 yards, all spun and wove by herself.

The committee speak in handsome terms of an invention of Mr. Cotton White, of Hadley, for making handles to corn brooms, by means of a hollow auger—of Teapots from the pottery

of Messrs. Crafts, White, & Co. of Whately—various and rich specimens of Cabinet Work presented by Messrs. Judd & Cook, Beach, Loveland, and Pomroy & Barns, and awarded gratuities to their proprietors.

Very nice specimens of Straw Bonnets were exhibited, and one of grass, in imitation of the Leghorn flats was highly spoken of.

The display of Cattle was unusually fine—that of grass fed cattle superior to the exhibition of last year in that department. The cattle were generally of the breed of the country, fine form, and in excellent condition. The whole number exhibited was seventy head, although a number were rejected in consequence of not being exclusively grass fed, the committee state that there were many for which premiums were not awarded, richly entitled to them, had any further premiums been announced. The committee likewise make favorable mention of a “beautiful red heifer,” exhibited by Mr. George Bridgman, of Northampton—of the number, beauty, activity and strength of the working cattle, particularly a yoke owned by Mr. Ephraim Arnold, of Belchertown.

The Committee upon Sheep, in announcing the principles upon which they have proceeded, remark that the breed of Merino Sheep valuable chiefly for its wool; not that these animals are inferior to the native sheep for the use of the table, as they may, undoubtedly, be grown to nearly if not an equal size with sheep of that description. But the quality of the wool deteriorates, as the condition of the animal, beyond what is termed good store order, is improved. The committee looked chiefly, therefore, to the quality of the fleece, its fineness, its softness, and its uniformity, and next to its quantity, giving to the finer fleece the preference, although the coarser one might have been more abundant—they desire to give in their report prominence to the fact, that sheep bearing wool of fine staple, and short, instead of long staple are the best. They likewise regret that there was so little competition for the premiums offered for native sheep.

The Ploughing Match was attended by great concourse of people. Eight ploughs were entered, and four oxen and fifty minutes allowed to each plough for the performance of the work; the land to be ploughed was one-fourth of an acre. The committee report that the ploughing by the various competitors was unusually good.

The Committee close their Report with the following important remarks:

“By the law of 1819, each incorporated Agricultural Society, within the state, which raise by the subscription of individuals a capital stock of one thousand dollars is entitled to receive in the month of October annually, from the public treasury, the sum of two hundred dollars, and proportionate sum, also, for any further addition by subscription, to its capital stock; provided however, that no society shall be entitled to receive, during any one year, any greater sum than six hundred dollars. Upon an inspection of the Treasurer's books, it appears that the capital stock of this society amounts to three thousand nine hundred and seventy five dollars entitling us, of course, to receive yearly \$600 from the state treasury, and giving us, with \$170 payable annually by 86 annual subscribers an income of \$1010 50. The statute containing the

above provision was passed in February 1819, and being limited to the term of *five years*, will expire, if not renewed, in February, 1824. The question will soon arise, therefore, as to the propriety of re-enacting or continuing in force the provisions of the act referred to; and it is not unlikely, before that period arrives, that the public sentiment upon this subject will have been distinctly ascertained and expressed.

"It is sometimes remarked, by casual observers, that our cattle shows, with all their imposing pageantry, are calculated merely for the amusement of the public, and do not, in any considerable degree advance the interests even of that class of our citizens, for whose immediate benefit they were first established, the agriculturists.

"However little there may be, either of truth or justice in the suggestions we have mentioned, it is, nevertheless, to be remarked, that the objection, even if correct, would impeach, not the wisdom of the legislature, to whose bounty it is owing that we are able to distribute so large a sum in premiums, nor the public spirit or distinguished liberality of those citizens, to whom we are indebted for the means of becoming the objects of that bounty, but only the discretion or sound policy of the officers, or those who are entrusted with the control of the affairs of the societies themselves.

"The great mass of the people of Massachusetts are either husbandmen, practical agriculturists, or artisans and mechanics, either partially engaged in agricultural labors or immediately dependent upon the cultivators of the soil for encouragement in their different occupations and the means of subsistence. Upon the sea board, it is true, we find multitudes, who having their arms upon the ocean, either in their own persons or through the instrumentality of others, rather from its furrows the sources of wealth. As it respects however, the great body of the population of New-England, four-fifths probably of her citizens are mechanics and farmers. And is it possible that societies like ours, instituted expressly for their encouragement, with an income throughout the commonwealth of many thousands of dollars, can do nothing for the great interests of manufactures or agriculture? And when too the perpetually varying wants of man, real or imaginary, are incessantly calling for improvements in the one, and the earth, with its stores of wealth, is for ever inviting new efforts for their development through the agency of the other?

"Agricultural Societies, as it respects this state, may be considered, for the most part, as of very recent origin. Their growth, it is true, has been rapid beyond example, and if they are as yet destitute, in some degree, of the healthy action and athletic vigor of mature life, they are rather to be fostered as children of high promise, than reproached for not possessing in youth all the characteristics of manhood. Perhaps at some future period, experience may dictate improvements in the distribution of our funds. While a portion of them is reserved for the objects now kept in view, a part may be appropriated to the encouragement of the efforts of genius in the invention of new modes of applying advantageously the mechanical powers, or in aid of societies or individuals, who may be engaged, with a prospect of benefit, in the investigation of the nature of soils. Suitable rewards

may be held out for the prosecution of botanical, mineralogical, or geological researches. In process of time, indeed, such may be the character of the society, and such the correspondent progress of intelligence on the part of its officers, and munificent liberality on the part of its members, that the benefits, resulting from the institution may be too obvious to escape the acknowledgment of the most incredulous, and too intimately connected with the best interests of the commonwealth to require a single effort to secure for it the cordial and hearty and permanent co-operation of the public.

"The members of the society will suffer us to remind them, to whose beneficence we are indebted, as well for our beautiful scenery, fruitful soil, and exuberant crops, as for the various institutions, of a civil and religious nature, which have given to New England its high pre-eminence; and as we view with that complacency of feeling, which even the *Christian* patriot may indulge, the inheritance which has been transmitted us, or the store houses and barns our own industry may have filled, let us remember with humble gratitude, Him who was our father's God, and to whose kindness it is owing, not only that *our pastures are clothed with flocks, and our vallies also covered with corn*, but that our institutions are unimpaired, and our prosperity and happiness, as a people, unexampled.

From the Connecticut Courant.

GRANBY, (*Turkey Hills Society*) Oct. 23, 1822.

Agreeably to previous appointment, the Cattle Show and Fair was attended at this place. The working oxen and steers in yokes, were collected on the green near the Meeting-house, at 10 o'clock, A.M. There were present 36 yokes of 5 years old—37 of 4—75 of 3, and 37 of 2 years old; in the whole 175 pairs. They were all in good working order, and generally well matched. After an appropriate Address, delivered by Mr. Alfred Owen, to a numerous auditory in the Meeting-house, the whole of the cattle, by assistance of the marshals, were connected in one line, making a team of a full half mile in length. In this order they moved about three-quarters of a mile on to a beautiful plain lot in Windsor, belonging to Isaac Owen, Esq. where they were formed into a hollow square, exhibiting a parade novel and highly interesting. The Committees of arrangements and inspection, with their Secretary, accompanied by several gentlemen of respectability from neighboring towns, were conveyed to the parade ground, (not in *coaches* with *sires*), but in two substantial *carts*, fitted up with benches, and drawn by three hundred and seventy oxen and steers, in a style vastly superior to monarchs and their minions.

The committee of inspection, as well as many spectators, viewed with pleasure the great improvement visible in the beauty and quality of the cattle, since the last annual Show, in Oct. 1821. Much praise is due to the owners and drivers of the cattle, for the laudable spirit manifested, and for the good order preserved by them.

Among so many fine animals as were here exhibited, the inspecting committee felt a degree of delicacy in making very great distinctions between several pairs of superior excellence. They were, however, of opinion, that

the most meritorious of those exhibited, might be presented in the following order:

Best pair working oxen, 5 years old, owned by Joab Owen, of Suffield.

2d	do.	do.	do.	Col. T. Leavitt,	do.
3d	do.	do.	do.	Henry Owen,	do.
Best	do.	do.	4 do.	J. Cornish, Jr.	Windsor.
2d	do.	do.	do.	P. Stevens,	Southwick.
3d	do.	do.	do.	J. Forward,	Granby.
Best	do.	do.	3 do.	Apollos Gay,	do.
2d	do.	do.	do.	E. Thompson,	Simsbury.
3d	do.	do.	do.	B. Griswold,	Windsor.
Best	do.	Steers,	2 do.	Col. S. Clark,	Granby.
2d	do.	do.	do.	E. Sheldon,	Suffield.
3d	do.	do.	do.	R. Barker,	Granby.
Best	do.	do.	1 do.	E. Bates,	do.
2d	do.	do.	do.	John Viets,	do.
3d	do.	do.	do.	Joel Clark,	do.

Much gratification was afforded upon the occasion, by the attendance of several gentlemen of distinction from different towns in the county.

It is believed that exhibitions of this nature are well calculated to excite a spirit of emulation among agriculturists, and to improve our stock.

It is thought worthy of notice that James Forward, Esq. exhibited a water-melon raised in his garden this season, the weight of which was 47 pounds, when taken from the vine.

Mr. Atkins' method of preserving Iron and Steel from Rust.

Greasy and oily, or resinous substances, have hitherto formed the basis of the different preparations proposed and employed for this purpose; but in the former, when rancidity comes on, an acid is produced, which corrodes the iron; and the latter, when dry, are apt to crack, and thus afford an inlet to moisture. But melted caoutchouc, or India rubber, Mr. Atkins has found to possess peculiar advantages in preserving the surface of iron from being acted upon by the atmosphere, arising from its little susceptibility of chemical change, when exposed to the air; from its treacherous consistence under all ordinary temperatures, from its strong adhesion to the surface of iron or steel: and, at the same time, from the facility with which it is removed by a soft brush charged with warm oil of turpentine. The finger or a soft brush are the most convenient implements for applying the caoutchouc; and, as soon as the article has been covered, it ought to be set up on end, in order that the excess may drain which will take place in a day or two. The temperature for melting caoutchouc is nearly equal to that required for the effusion of lead.—*Monthly Mag.*

New method of Weaving Mats.

This method consists in disposing in a cheap and coarse kind of loom, a double series of plain and colored lines of longitudinal stripes of twine—the stripes being at intervals considerably apart from each other. These threads of twine being opened in the manner of a warp, by means of the treadles and harness of the loom, either Dutch rushes or the leaves of *Typha latifolia* or greater cat-tails, torn into shreds, are to be introduced from time to time, with a wooden needle, having an eye or opening at one end of it to receive the rushes, to form the shoot, and the twine is closed over them by the continued action of the loom. In this manner, a cheap and useful matting is fabricated, the use of which is now become very considerable amongst us, although the invention is of a very recent date.—*English paper.*

MASSACHUSETTS AGRICULTURAL JOURNAL,
FOR JUNE, 1832.

(Continued from p. 35.)

A letter from John Prince, Esq. of Roxbury, to the Committee on Agricultural productions, dated Nov. 1821, states the following facts, viz. That Mr. Prince kept a large stock for the size of his farm, which is small, his house lot only 57 acres, and was therefore induced to raise largely of roots. The quantity, however, is smaller than he had last season from the same quantity of land under cultivation, owing, as Mr. Prince supposed, to its being principally from pasturage, newly broken up. The productions of the fifty-seven acres were 800 hills of summer squashes (on less than half an acre) which yielded largely, and were daily gathered for a long time, and boiled for a large stock of swine, with the thinnings of mangel wurtzel, &c. &c.—657 bushels of mangel wurtzel at the harvesting, besides a large quantity of thinnings, during the season, and also of leaves at harvest given daily to cows, swine, &c. cost seven cents per bushel. Mr. Prince says, "I think a greater quantity of this root can be raised on suitable soils, than of any other vegetable, requiring not more than one third of the labor that carrots do. —100 bushels carrots, on same space of ground adjoining the preceding crop; cost 17 2-3 cents per bushel—537 bushels ruta бага; 3-4ths of them were raised on land broken up the same season, and the sods burnt by an Irishman acquainted with the business, and no other manure on the three-fourths; the cost 3 2-3 cents per bushel; were sown the 29th June, too late by a fortnight, but the land could not be got ready sooner—745 bushels of potatoes, besides early ones, used during the season; they were of 13 different sorts, and cultivated by Mr. Prince for the purpose of selecting the most valuable. The best were the *Elam* potatoe from Rhode Island, and are uncommonly fine. The second best from Gen. Derby, of Londonderry, N. H. and supposed to be the Buckman potatoe from Maine, a new sort. The third from Hamburg, imported by T. B. Wales, Esq. are very fine and yield well. There were so many sorts, and planted on so many spots, that it was impossible to keep the costs—15 bushels of sweet potatoes of very good quality, and the cost of cultivation not more if so much as others; they yield more from the same number of hills, and do best on light sandy land—37 bushels Russian radish, the produce as large as any vegetable Mr. Prince ever raised; some of them weighing fourteen pounds; they keep well through the winter; cattle are very fond of them, and the thinnings were boiled, among other vegetables, for swine. Gen. Derby, of Londonderry, has this year raised more than one thousand bushels altogether on his cornhills (one each) and he thinks it no injury to the corn; they do not seed the first year, like other radishes, but must be cultivated like turnips—400 bushels turnips of different sorts; some of the yellow Aberdeen, from Mr. Young, of Halifax, thought to be the best of any for the table, and keep well; some red tankard and white Norfolk. All were *imported* seeds, and not sown till the last of July, and principally on burnt soil. I find, says Mr. Prince, when English turnip seeds are used, they should be sown from two to four weeks earlier than our own old fashioned sorts, as the tops grow very large, and the roots do not begin to swell till

the tops are nearly done growing.—Cabbages, a considerable quantity, but did not head well; the soil too dry for them. Besides a considerable quantity of vegetables from a large garden, not more than two hundred bushels have been, or will be disposed of otherwise, than for the use of the farm. Last winter I kept in pits near one thousand bushels of Ruta Baga and Mangel Wurtzel, which did so well, that this season I have nearly as many. The trench dug about one foot deep, and four feet wide, and long enough to contain one hundred and fifty or two hundred bushels each: they are then piled about 3 1-2 feet like the roof of a house, covered eight or twelve inches with straw or meadow hay, and then with the earth thrown out of the trench and enough added to make it, when the weather becomes quite cold, about a foot thick. Be careful not to cover too thick at first, as the heat of the vegetable is great, when confined in so large a body, and would destroy them."

Mr. John Dwinell gives a statement of the cultivation of a lot for a premium crop of potatoes.

"The lot is situated by Bridge street, so called, in Salem, county of Essex, and owned by Messrs. Waitt and Pierce. It was broken up in 1819; soil black, low and heavy. For about twenty years previous to which, it had been mowing land. The last year potatoes were raised on the lot, nine cart loads of barn manure, about twenty bushels white seed potatoes, and whole labour then employed in production of crop, nineteen and an half days.

The cultivation, &c. the present year has been—1st. Four loads of barn, and five of privy manure, for one yoke of oxen, were put on the lot.

2d. The seed, an equal portion of whites, blues and long reds, making in all about twenty-four and an half bushels.

3d. Two days ploughing and half a day furrowing, with one yoke of oxen, no driver; 17th and 19th of May, three days planting; 14th June, three and an half days weeding; 16th July, 3 days hilling; and from 1st October, ten days digging crop, making in the whole twenty-three days labour.

4th. The amount of crop measured five hundred and eighteen and an half bushels on the acre."

Thomas Shepherd, Esq. of Northampton certifies, in substance, that on the 16th Oct. 1821, he measured an acre of ground, across the end of his cornfield, had the produce threshed on the first day of the Cattle Show, brought it to the Show in the afternoon, and sold it under the inspection of hundreds of people. The corn was perfectly hale and dry, and measured 87 bushels and 21 quarts, all produced from one acre of land sowed in rows about four feet apart. The same gentleman caused an acre of land adjoining the above to be measured off, which was sowed in alternate rows of corn and ruta бага; the corn rows being eight feet apart. The produce was sixty-one bushels and twelve quarts of corn, and one hundred and sixteen bushels of ruta бага. The whole field of nearly twenty acres (except the first acre) was sowed in rows eight feet apart, and the half acre, which yielded 61 bushels and 12 quarts, was not better than a fair average of the field. The ruta бага sowed between the corn rows was al-

most burnt up with the drought. The first acre was entered for the Society's premium of \$30, for the greatest quantity of corn on an acre, and the second acre for the premium of \$30, for the best mode of raising corn. The land was dry and the corn *suffered much* from the drought. The field contains nearly twenty acres, which with four others of about the same size is cultivated under a five years' rotation of crops without manure, except the corn year, when it is spread on profusely. It had lain in grass (with out any manure being put on it) three years when it was ploughed in the fall, and manured in the spring at the rate of nearly fifty loads to the acre, taken fresh and green from the barn yard and pig sty, and all made during the winter (except some heaps of compost not very good) by the cattle, sheep and pigs, from straw and oats mixed with the stable manure; the land was cross-ploughed an inch or two deeper than the fall ploughing; the manure covered up as fast as it was spread about from the carts, the turf harrowed fine with light seed harrows; the land furrowed back to back in ridges four feet apart, the tops of the ridges being two feet higher than the bottom of the ditches. The land was then harrowed across the ridges, which filled up the ditches with fine rich mellow earth a foot deep, well mixed with manure, in which the corn was carelessly strewed along *very thick* sprinkling gypsum on it before covering it up. The corn was sown between the 10th and 26th of May, was hoed three times, beginning the first week and ending the last week in June. Mr. Shepherd concludes this article as follows

"I have tried every plan for several years past, and this is the third year that I have sowed it in rows from six to eight feet apart, with a variety of roots and plants between them. The first year I got 44 1-4 bush. to the acre, or rather from half an acre; the second year 51 bushels, and this year 61 bushels 12 quarts. I am my belief that 75 bushels corn and 3 or 40 bushels Ruta Baga (or 2 or 300 bushels potatoes) can be raised on an acre of good rich ground cultivated in this way; but the corn must be sowed *very thick* in rows eight feet apart, and the ditch well filled with fine mellow earth, and *plenty of manure*, nor is it an expensive mode of culture considering the great crop to be obtained. The cross ploughing and furrowing is extra work, but this it is, with the aid of the harrows that makes the great crop, if sowed in wide rows, as my experiment this year proves, having got at the rate of 122 bushels 24 quarts to the acre in this way, and in the narrow rows with more exhaustion of the land, only 87 bushels 24 quarts. With regard to the expence of cultivating a single acre of land, the Trustees will please to consider that I do not cultivate any one acre of land with a view particularly to a premium, and therefore cannot ascertain the expence. I would observe however that the extra expence of cultivating corn in this way beyond what it is in the usual way in hills is inconsiderable. They will also decide which of the two is most meritorious, him who cultivates his whole farm alike both as to labour and manure, or him who devotes all his energies to get a great crop, from a single acre, and robs the residue of his farm for the benefit of a premium."

The succeeding articles in this excellent number of the Massachusetts Agricultural Re-

pository are "An Essay on the advantages of manuring with Green Crops—by S. W. Pomeroy, Esq. first Vice President of the Society," which we have republished, (p. 9,) and an article on "The felling of Trees for Timber," by Hon. Timothy Pickering, which we have also republished, (p. 17.)

✂ We have now transplanted into the *New England Farmer*, either in substance, or at length, every article in the last number of the Massachusetts Agricultural Repository, whose more general diffusion we thought might be useful to that numerous and respectable class whose principal occupation is cultivating the earth. In doing this we may, perhaps, incur the censure of some of our readers, who were previously in possession of the work, which has been the subject of our notices and extracts. But we believe that more than four fifths of our subscribers do not take the Massachusetts Agricultural Repository, and many of them would, probably, never have seen much of the useful matter first published in that valuable work, had it not been presented to them through the medium of our paper. We are moreover confident that the liberal use which we have made of the Repository will be so far from giving offence to its conductors, that they will approve of our proceeding, as comporting with their own patriotic views and intentions. Dr. A. Hunter, the author and compiler of several volumes of valuable Essays on Agriculture, invited Editors of Newspapers to make extracts or republish whole articles from his essays, in order that the public might be the more extensively benefitted by his labors. Utility rather than originality is our object, and we prefer copying a valuable article from another publication, to publishing original matter, written expressly for the *New England Farmer*, which may have less merit than the article thus copied. We mean, however, always to give credit, to the sources or authors from whom we derive our second-hand articles; and if some editors of newspapers (for whom we hope this hint will suffice,) would deal as fairly by us, they would confer an obligation. If certain jackdaws will not be contented with their own feathers, we will not promise not to divest them of their stolen plumage. We shall handle them with as little ceremony as a hawk would a robin.

To the Editor of the *Utica Gazette*.

Str—A friend has furnished me with the following account of a very extraordinary crop of corn raised on three acres of land, by Messieurs J. and M. Pratt, of Easton, Madison county, for which they received a premium from the Agricultural Society. The character of these gentlemen, as well as the exertions of a respectable committee to ascertain the truth, preclude all doubt of the correctness of the statement. The effect is unexampled in this county, and I hope it will not fail of convincing many of our farmers that they have mistaken the true source of agricultural profit, and that it may excite in them

a laudable spirit of emulation. If, under a better course of husbandry, we could raise from 50 acres as much produce as we now do, under the present system, from 150 acres, lands would become more valuable and the benefit generally would be incalculable. I understand Messrs. Pratts feel confident, from the result of this experiment, that they can, in a good season, raise 200 bushels to the acre, and that they hope to do it next year.

A FARMER OF ONEIDA.

STATEMENT.

Dr. Interest on value of three acres, at 20 dollars per acre	\$4 20
Manure, \$15 per acre	45 00
Ploughing and dragging three times	16 50
Seed	75
Planting	7 50
Hoeing	10 50
Gathering	15 50
Topping stalks	6 00
	<hr/> \$105 95
Cr. Corn from 1 ac. 172 1-4 bush.	
do. do. 161	
do. do. 161	
	<hr/> 494 1-4
Deduct 10 per ct. for shrinkage	49
	<hr/>
Bushels 445 1-4 at 37 1-2 cts. per bush.	\$167 06
2355 bundles stalks at 1 ct. each	23 55
Offered for but-ends and husks	10 00
	<hr/> \$200 61
Deduct	105 95
	<hr/>
Net profit from three acres	\$94 66
Or \$31 55 per acre.	

From the Farmer's Weekly Messenger.

It appears by experiments made in Pennsylvania, that potatoes and corn given in a raw state are inferior to the same quantity when ground, boiled and steamed, forty-five per cent. i. e. if a hog weighs three hundred, and it cost half to fat him with ground corn, and he is sold for four cents, in the one case it will cost six dollars to fat him, and in the other case it will cost eight dollars and seventy cents. If he that sells his pork, when fatted on the best terms, only lives by it, the man who feeds on whole grain must shortly expect the officer after him. It is believed that there is more difference than even the above.

A discovery has been recently made, which promises the most important consequences in a commercial and agricultural point of view.—About two years ago, 200 acres of land, near Flint, in Wales, were planted with the common holyhock or rose mallow, with the view of converting it into hemp or flax. We have been informed, that, in the process of manufacture, it was discovered that this plant yields a beautiful blue dye, equal in beauty and permanence to the best indigo. We relate the circumstance precisely as we have heard it from the most respectable quarter, without pledging ourselves to the fact.—*Liverpool Kaleidoscope*.

From the American Centinel.

TO MY BROTHER FARMERS.

I am sorry that there is so much need of the admonitions I am about to give. Depend on it you do not "work it right," or you would make your farms and stocks twice as profitable as they now are. Many of you farm too much. You would find it much more profitable to farm twenty acres well than forty by halves. The last season, I made ground produce at the rate of one hundred bushels of Indian corn to the acre. Is not this much better than a common crop of 30 or 40 bushels? You will most certainly say it is, and with the same breath ask how I managed to make it produce so plentifully? My ground being much infested with ground mice, or moles, and also overrun with grubs and other vermin, I put on, early in the month of March, about seven bushels of salt to the acre, which thoroughly destroys all kinds of vermin, being an excellent manure; early in April, I gave it a good coat of stable manure, and ploughed and worked the ground over and over, until it became completely mellow; I then had every corn hole filled with hog manure, and after dropping my corn, which had been previously soaked in warm water, I scattered a pint of lime over every hill, and then covered the whole with a little mellow earth. In about one week the corn began to come up plentifully, after which I nursed it well with the plough and hoe every other week for eight weeks, at which time it was as high as my head, and not a spire of it was destroyed either by the frost, grub or birds. My other things I nursed equally as well, and I have been amply paid for all my extra care and trouble, as I raised more than twice as much per acre as any of my neighbors, and did it in much less time—I mean I got all my harvesting done two or three weeks before many others. This is accomplished in a great measure by redeeming time; rising between 3 and 4 o'clock in the morning; then if the day be very sultry and hot, I lie by from 12 to 3, and then I feel refreshed and able to go to work until quite dark—this I call "working it right." Whereas, should I lay in bed until the sun be up and shame me, haunt the taverns at night, drink too much whiskey, but half manure, half plough, half plant, half nurse, half harvest, and do every thing else by halves, I surely should not "work it right," nor get half a crop.

I shall now conclude, by giving you, for further consideration, a few excellent observations from a wiser head, perhaps, than my own, which I shall endeavour to improve for myself, and hope every brother farmer will do so likewise, viz:—

I often say to myself, what a pity it is our farmers do not work it right. When I see a man turn his cattle into the road to run at large, and waste their dung, on a winter's day, I say this man does not work it right. Ten loads of good manure, at least, is lost in a season, by this slovenly practice—and all for what? For nothing indeed but to ruin his farm.

So, when I see cattle late in the fall, or early in the spring, in a meadow or mowing field, poaching the soil, and breaking the grass roots, I say to myself, this man does not work it right.

So when I see a barn yard, with a drain to it, I say the owner does not work it right, for how easy is it to make a yard hollow, or lowest

in the middle, to receive the urine and all the wash of the sides, which will be thus kept dry for the cattle.

The wash and urine of the yard, mixed with any kind of earth, or putrid straw, is excellent manure; yet how much do our farmers lose by neglecting these things;—in fact, *they do not work it right.*

When I see a farmer, often going to the retailer's store, with a bottle or jug, lounging about a tavern, or wrangling about politics, or quarrelling with and defaming his neighbour's good name, I am certain such a man *does not work it right.*

A PENNSYLVANIA FARMER.

From the London Globe.

MOST IMPORTANT DISCOVERY.

Six weeks since, application was made to a person for the loan of *one hundred pounds* to a young chemist, who had a discovery he was too poor to substantiate by experiment. The money was obtained, and in a few days repaid by the borrower, already raised to sudden affluence by the private disposal of his invention:—It is a new mode of tanning skins, combining such rapidity and economy, as promise to the publick an immediate and immense advantage. Raw hides, hitherto lying twelve months in the tan pit, and subjected to a process otherwise defective and precarious, are now perfect leather within six weeks, and at less than half the expense. The gentleman who bought the invention, is a noted opposition member and contractor; and from the terms of his stipulation, we may form some judgment of the probable magnitude of the results. He has paid him 10 000*l.* down, he has given obligatory deeds, securing him 5000*l.* on the 1st. of January, 5000*l.* per annum for the four years next succeeding and afterwards 11, 000*l.* a year for life! It is expected the price of a pair of boots will not exceed eight shillings, and a corresponding fall will be produced in all articles of leather manufacture.

From the Philadelphia Union.

GAS FROM OIL.

A company at Boston has established works for making gas, and obtained permission from the city authorities to lay iron pipes from three to four inches in diameter, in the streets, for the purpose of supplying such parts of the town as will receive a sufficient quantity of gas to indemnify the company for the expense.

The gas proposed to be used, is that obtained from oil, which, it has recently been discovered, is far preferable to that obtained from coal.—The apparatus, Professor Silliman states, is much less expensive—occupies much less space—requires less skill and labour to manage it, than the coal gas apparatus—is not so liable to wear and tear—and as there are no offensive products to be removed, it may, on its present improved construction, be introduced into any dwelling-house. All the costly and offensive operation of purifying the gas by lime, &c. is totally avoided when it is obtained from oil.

The material from it is produced, containing no sulphur or other material, by which it can be contaminated, there is no objection, on account of a suffocating smell, to the use of oil gas in close rooms; and, as it contains no unmixed hydrogen (which occasions the great heat of the

coal gas,) there is no greater proportionate heat from the flame, than from that of lamps or candles. It does no injury to furniture, books, plate, pictures, &c. and contains nothing which can possibly injure the metal of which the conveyance pipes are made.

AMERICAN MANUFACTURES.

Messrs. Adams, Allen & Co. have lately established in the vicinity of Pittsburgh, a manufactory of cotton yarn and piece goods—the first of the kind which has been established in Pennsylvania, west of the mountains. They have already put into operation upwards of 500 spindles and eight power looms, and are now engaged in constructing 1000 additional spindles, which will be put in operation in the ensuing spring.—These spindles will supply yarn for looms sufficient to weave from 1500 to 2000 yards of piece goods per day. At present, there are about 20 hands employed, principally females. The whole machinery, which is of the latest and most approved kind, will be driven by a steam engine of about thirty-five horse power.—*ibid.*

SQUIRRELS IN OHIO.

A letter from the Ohio country, an extract from which is published in the Woodstock, Vt. Observer, states that whole fields of corn from 6 to 10 acres, are wholly destroyed by grey and black squirrels—not an ear left. During a squirrel hunt of about a week in the neighboring towns about Columbus, the first part of Oct. nearly 20,000 were killed. Hundreds were seen every day swimming the Great Miami, Mad River, Scioto, and other streams. Children from 6 to 10 years of age, would wade into the shallow water, before the squirrels reached the shore, and kill them with sticks. Many of them are fat and fine eating. We saw many little boys and some men, with from ten to thirty or forty on their backs. They seem to be almost as destructive as the locusts formerly were in Egypt. It is supposed that they are in pursuit of nuts, and attack corn-fields. Notwithstanding the depredations of these animals, corn and oats in many parts of that country are only 12 1-2 cents per bushel; wheat, by the quantity, from 25 to 37 1-2 cents per bushel; butter and cheese from 6 to 10 cents per pound.

The season has been very good in some parts of the Ohio country, but in some parts of Pennsylvania, Virginia and Maryland, almost every thing is destroyed by drought.

Longevity of the Clergy in the Old County of Hampshire.—The following passage of a letter from the Rev. Enoch Hale, of Westhampton, is inserted in the last North American Review:

"When I was ordained (in 1779) there were, including myself, 34 or 35 ministers in Hampshire county. Of these nine are now living, and I am the youngest of the nine. Two are above 75, and have colleagues. Four perform the ordinary ministerial duties, two of them are above 70. One was dismissed and is about my age. In 40 years, only one minister has died, within the present limits of Hampshire county, under the age of 70. Of those who have died within the limits of the old county. (as it was in 1779.) one was nearly 100, three about 90, one 89, eight about 80, and eight about 70."—*Hamp. Gazette.*

THE FARMER.

BOSTON:—SATURDAY, NOV. 9, 1832.

On the Metamorphoses and Manners of the Cock-chaffer Fly, the Scarabeus Melolontha, Lin.; with Hints tending to lead towards some means of destroying it.

PLATE I.

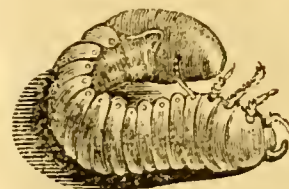


PLATE II.



Plate I. is a representation of a full grown insect. The small dots at the end of each of the vertebrae or joints, are shining specks which are the air holes thro' which it breathes.

No. II. represents the same insect after it has changed to a fly or miller.

The eggs of this insect are deposited by the mother in the ground, from each of which proceeds, after a short time, a small whitish worm with six feet, that is destined to live in the earth under that form for the space of four years, and there undergo all its changes, until it finally assumes its pupa form [form of a winged insect] subsisting, during its abode in the earth, upon the roots of trees and other plants that grow in the soil, committing ravages among these crops, on some occasions, of the most deplorable kind. After it assumes its winged state, it devours the leaves of trees and other plants with an avidity not much less than that of the locust; so that in certain seasons, and in particular districts, they become an oppressive scourge that produces much misery among the people. Fortunately their ravages are but temporary and local, being moderated by circumstances in nature with which we are yet in a great measure unacquainted.

As soon as the worm issues from the egg, it seizes upon such roots as it finds nearest to it, and devours them, living all the summer under the thin coat of vegetable mould, near the surface; but, as winter approaches, it descends deeper into the earth, and, penetrating directly downwards, retires beyond the reach of the frost, where it remains in an inactive state, and without food, till the return of spring, when the warmth of the season invites it to ascend and begin its ravages anew upon the roots that spread themselves through the tender mould near the surface. In this manner it proceeds for three or five successive seasons, changing its skin at least once a year. It is not till the end of the fourth year that the larvæ are metamorphosed; for then, towards the end of autumn, they go deep into the earth, sometimes six feet, and then spin themselves a smooth case, in which, after quitting their last skin they change into the pupa, or chrysalis. The pupa remains under this form all winter, till the month of February, when it comes out a perfect Scarabeus, soft and white. It is not till the month of May, however that the parts become hardened, and they come out of the earth in the day time; and thus we often find it

the earth perfect cock-chaffer flies; which has made many persons think that these insects live from one year to another, and pass the winter in the earth to protect them from the cold.

These worms, though they are always white, yet are sometimes found varying, more or less, wholly, or in part, into a bluish tint, produced by the internal parts, seen through the transparent skin.

These scarabei are seen during the whole summer, especially towards the end of May, and in June, flying in the evening towards sun-set, particularly where there are trees. They seem to be a heedless kind of animal, that fly briskly without regarding much where they go, and therefore become extremely troublesome to persons who walk in places that they frequent, by their darting frequently, and with force, upon the face and other parts of the body, which, when naked, prove very teasing. They eat the leaves of most species of forest trees, as well as fruit trees.

In the United Provinces of the Low Countries, the children amuse themselves by attaching a long thread to one of the hinder feet, and leave them thus to fly without suffering them to escape; they fly then commonly round, describing a circle in the air; from which some think they have obtained the name of *molinaars*, that is to say, millers; the probability is, however, that they have obtained that name from the greyish hairs, resembling powder on a slight look, or the whitish dust with which their bodies are covered.

The Society of Arts in London has for many years past held forth a premium for the best account of this insect, and the means of checking its ravages, but without having produced one successful claimant.

In order to destroy these insects, some English writers recommend to cherish and protect rooks, magpies and jays, whose sole employment, for some months, is to search for insects of this sort for food.—“A cautious observer, says Dr. Anderson, having found a nest of five young jays, remarked, that each of these birds, while yet very young, consumed fifteen at least of these full-sized grubs in a day, and of course would require many more of a small size; say that on an average of sizes, they consumed twenty a piece; this for the five makes one hundred. Each of the parents consumes, say fifty; so that this pair and family consume two hundred every day. This in three months amounts to twenty thousand in one season; but as the grub continues in that state four seasons, this single pair, with their own family alone, without reckoning their descendants, after the first year, would destroy eighty thousand grubs. Let us suppose that the half, viz. forty thousand, are females, and as it is known that they usually lay about two hundred eggs each, it will appear that no less than eight millions have been destroyed, or prevented from being hatched by the labors of this single family of jays.

These insects afford a most acceptable food to ducks, turkies, and the other inhabitants of the poultry yard, which are remarked to lay a greater number of eggs when thus fed, than at any other time. Swine likewise devour them greedily, if they be first bruised and mixed with their other food.

The ravages of the grub are sometimes not experienced for many years together. At other times they appear in immense numbers, without our being able to assign any reason for it. This is thought to be owing to the long period that this insect lives in its grub state, during all which time it cannot multiply, and must be subject to a variety of accidents that may destroy it, without ever allowing it to come within the reach of our cognizance.

Cabbages, cauliflowers, and strawberries, are all much relished by the grub, but lettuce seems to be its

most favorite food. In lands infested with the grub, gardeners sometimes make use of this as a bait to destroy them. They plant a row of lettuce plants between the rows of strawberries. In that case the grub attacks the lettuce. The gardener, aware of this, examines his plants with care each day, going along the rows with a trowel in his hand, and wherever he sees the leaves falling, he knows that the enemy is there, and immediately digs up, and destroys the grub.

It is thought that the whole race of grubs are sometimes destroyed by winter rains; and wherever irrigation takes place, the destruction of the grub must be effected. If a stream of water could be spread over the surface of a grass field only for a few days, during any of the winter or spring months, it is supposed that the grubs might thus be drowned in their holes. Dr. Anderson recommends this mode of destroying grubs, in grass lands which are infested with them, especially when it is intended to turn them up to corn, (wheat, rye, &c.) for the mischief grubs do in these circumstances to the first corn crop is often very great. It might, says Dr. Anderson, even with safety be applied to orchards and wood-lands; for these would sustain no damage were not the water continued longer than is necessary for the destruction of the worm.*

Dr. Darwin says in *Phytologia*, sec. xiv, 3, in speaking of the *Scarabæus Solstitialis*, or fern chaffer, “when the fly is seen to come out in abundance in the summer evenings on grass lands and fallows, it is probable that rolling the ground in the evening might prevent the return into the earth, both of these and of the may-chaffers, to deposit their eggs and thus prevent their future progeny; or during their grub state, when they exist at the roots of wheat above, or just beneath the surface of the soil, perhaps slacked lime might be sprinkled over the crop in powder, or sea-salt in powder, which might be washed down the stems of corn in a wet day, and destroy the insect, without injuring the vegetable; or lastly tar water; all which might be first tried on a small part of the field; for as lime is not all of equal purity, it is not all of equal strength or causticity.” The same author, in speaking of the white slug in gardens, says, “It has lately been asserted, that watering the ground with tar water will destroy them, which may be made by adding a few pounds of tar to a hogshead of water, and well stirring it, without perceptible injury to the tar.” *Phytologia*, sec. xiv, 3, 5.

There is no doubt but common turpentine might answer as good a purpose as tar, if made use of in the same way. Infusions of elder are likewise, it is believed, fatal to all sorts of insects. Lime water would be a cheap application, and a quart of quick lime would more than saturate a hogshead of water, for lime cannot be taken up or held in solution in less than about 700 times its weight of water. Any of these liquid substances may be applied to a soil infested with worms, either by a common gardener's watering pot, or by letting the liquid out of a barrel or hogshead, by a pipe communicating with a tube 10 or 12 feet in length, with its ends closed, and bored full of small holes five or six inches apart, and placed either before or behind the wheels of a cart, across, or fastened under the body, in such a manner that the liquid may issue through holes and wet the ground equally, as the cart is drawn over it. Or in other words, wet your grounds with lime water, &c. when the grubs are near the surface, by an apparatus similar to that which is used for wetting the streets of cities in hot and dry weather. If such applications should not kill the worms

* This account is principally abridged from a paper in the 3d volume of *Anderson's Recreations*.

it would probably spoil their appetites, and lime water would, moreover, in many instances, be useful as a manure.

LATEST FROM EUROPE.

An arrival at New York brings intelligence from London to the 22d and Liverpool to the 24th of Sept. The Greeks are proceeding with rapid and victorious strides to the achievement of complete independence. They attacked the Turks before Argos on the 23d July, and defeated them, after a furious contest. On the 24th and 25th the Turks were harassed on their retreat by the Grecian sharpshooters. An obstinate battle at length took place, near Corinth, in which more than 1500 Turks perished. On the 6th and 7th of August, likewise, the Turks were defeated with great carnage, 3000 remaining dead on the spot. The number of wounded and prisoners is not known, but two thousand Turkish horses, all their baggage and munitions, together with their military chest were among the fruits of the conquest. Up to the 18th of August, the date of the last accounts, the Greeks were triumphant, and news was every moment expected of the complete destruction of the Turkish army.

In Spain the Constitutional party are successful, and their enemies are submitting or retiring from the scene of action.

The Congress of Sovereigns were assembling at Verona, at the date of the last accounts. Nothing favorable to Greece, it is said, is expected to result from the deliberations of this body.

On Monday last, the election of Representatives to the next Congress, took place in this State. In *Suffolk* District, Mr. Webster is elected—in *Essex*, North, Mr. Nelson—in *Middlesex*, Mr. Fuller—in *Norfolk*, Dr. Eustis—in *Bristol*, Mr. Baylies—in *Plymouth*, Mr. Hobart.—In *Hampshire S.* Mr. Lathrop is probably elected; and Mr. Allen in *Hampshire N.* It is supposed no choice has been made in *Essex S.* and *Worcester N. and S. Districts*. The other Districts in the State not heard from.

Rapid Growth.—The following singular instance of the rapid growth of an engrafted scion, is worthy of notice, and will be interesting to virtuosos.

A Mr. Foster, of Scituate, grafted in his orchard, in May last, an apple tree, which in four months from the time the scion was set, bore an apple which girted 6 3-4 inches in circumference.—*Gazette*.

Mr. Coke, the rich and hospitable English Commoner, has discontinued his Annual Agricultural Festivals, where for so many years he had entertained many hundreds of the most distinguished friends of Agriculture, and Practical Farmers of England and of Europe. In a letter to one of his friends in America, he says, he has been compelled to reduce his rents thirty-three and a third per cent. and his tenants are known to be better able, than any others in England, to support the existing burdens on that class of British population.—*ibid*.

Premium offered.—The Emperor of Germany has lately offered a thousand gold ducats, equal to \$2000, to the author, whether native or foreigner, for the best treatise on the construction of water mills.

A Velocipede, with two wheels, has been constructed in England, by which a person, with considerable ease, may travel six miles an hour.

NATHANIEL DEARBORN...*ENGRAVER*, HAS removed to Market Street, No. 33, over Mr. Bailey's Store, West corner building of the stone steps passage way.

Orders for Engraving and Printing Address or Visiting Cards; and engravings on Wood, Brass, or other metals solicited. Door Plates of any style and price, of Brass, Silver or Silver-plated. Nov. 2.

UNPRINCIPLED AMBITION.

BY T. G. FESSENDEN.

Ambition improperly directed, and destitute of principle, is a fruitful source of human misery, and causes most of the calamities of life. Many of its votaries, instead of rendering themselves notable become notorious, and obtain infamy in escaping obscurity. They cannot endure the idea of gliding silently down the stream of life into the gulf of oblivion, without leaving so much as a bubble or a ripple behind them; and therefore trouble the waters as much as possible during their passage from time to eternity. It is to be feared that there are more men like Eratostratus, who set fire to the temple of Ephesus for no other purpose than to preserve his name from oblivion, than like the "Man of Ross" who did good without seeking fame, and found that

"One self-approving hour whole years outweighs,
"Of stupid starers, and of loud huzzas."

But the man is happier both here and hereafter, who

"Along the cool sequester'd vale of life,
"Still keeps the noiseless tenor of his way,"

than he who "wades through slaughter to a throne," and "shuts the gates of mercy on mankind."

Dr. Darwin, in his elaborate work entitled *Zoonomia*, treats of Ambition as a disease, and thus describes its symptoms, and method of cure.

"Ambition.—A carelessness about the opinions of others is said by Xenophon to be the source of impudence; certainly a proper regard for what others think of us frequently incites us to virtuous actions, and deters us from vicious ones; and increases our happiness by enlarging the sphere of our sympathy, and by flattering our vanity.

Abstract what others feel, what others think,
All pleasures sicken, and all glories sink.....POPE.

"When this reverie of ambition excites to conquer nations or to enslave them, it has been the source of innumerable wars, and the occasion of great devastation of mankind. Caesar is reported to have boasted that he had destroyed three millions of his enemies, and one million of his friends.

"The works of Homer are supposed to have done great injury to mankind by inspiring a love of military glory. Alexander was said to sleep with them always on his pillow. How like a mad butcher amid a flock of sheep appears the hero of the Iliad, in the following fine lines of Mr. Pope, which conclude the twentieth book.

His fiery coursers, as the chariot rolls,
Tread down whole ranks, and crush out heroes' souls.
Dash'd from their hoofs while o'er the dead they fly,
Black, bloody drops the smoking chariot dye:
The spiky wheels through heaps of carnage tore;
And thick the groaning axles dropp'd with gore.
High o'er the scene of death Achilles stood,
All grim with dust, all horrible in blood:
Yet still insatiate, still with rage on flame;
Such is the lust of never-dying fame!

"The cure must be taken from moral writers. Woolaston says Caesar conquered Pompey; that is, a man whose name consisted of the letters C. a. s. a. r. conquered a long time ago,

a man, whose name consisted of the letters P. o. m. p. e. y. and that this is all that remains of either of them. Juvenal also attacks this mode of insanity. Sat. X, 166.

Idemem et sava curre per alpes
Ut pueris placeas, et declamatio fias.

Which is thus translated by Dr. Johnson:

And left a name at which the world turn'd pale,
To point a moral, or adorn a tale."

If Dr. Cautic may be permitted to add any ingredients to Dr. Darwin's prescriptions, he will give the following moral

ANTIDOTES TO AMBITION.

When men of arrogance attempt to soar

Above the limits of their destin'd sphere,
Their every effort serves to sink them lower,
Curtail'd and baffled in their mad career.

Yet witless wights, in rash pursuit of fame,
Strive for pre-eminence of power and place;
Who, if they gain the rank at which they aim,
Become the heralds of their own disgrace.

Some fools are smitten with the love of dress,
And spend their little all to make a show;
Pride proves the cause and prelude of distress;
Attempts at high life bring the coxcombs low.

Some splendid sinners, proud of being vile,
For genteel vices high pretensions urge,
Enact the rake and debauchee in style,
And claim a wreath for meriting a scourge.

Some place their pride in wealth, by fraud obtain'd,
Cash, houses, lands, the purchases of guilt;
The conqueror boasts of battles he has gain'd,
And laurels drench'd in blood unjustly spilt.

All such vain-boasters glory in their shame,
The meed of vice no honor can bestow,
Impell'd by pride, bad eminence their aim,
They gain, at last, pre-eminence in woe.

From the Old Colony Memorial.

In the *New England Farmer*, Oct. 26th, are extracted from President Dwight's tour in New-England, some remarks on the *Beach Grass*, and its utility as manifested by its improvement on Cape Cod. The Editor requests "any friend or correspondent to furnish information relative to the above mentioned grass."

Little can be added to the judicious and critical remarks of the respectable tourist—but it may be remarked, that its production is not peculiar to Cape Cod; it grows spontaneously in all situations similarly constituted. It delights only on the open, exposed beach, and that constituted entirely of white sand, or pure silex, without any adhesive mixture; it is never seen on the adjoining meadows or upland, although within convenient distance to have its seed wafted on them by the wind—and it is believed to be incapable of being produced where there is any soil.

This harbor is defended from the sea by a bench on either hand, of similar formation; that on the north side, which extends from the Gurnett to Marshfield, three or four miles, is called Salt-house beach—that on the south side, and emphatically called the *Plymouth Beach*, extends from Monumet northerly about one mile and an half, and are both, more or less, covered with this grass; and so impressive is the opinion of its utility, that they are protected, and have long been, by special acts of the Legislature, preventing them being fed by the neighbouring cattle.

From the Vermont Republican and Yeoman.

ON WELLS.

As the preservation of health depends much upon the state and quality of the water in use, it is of the utmost consequence that no efforts should be spared to preserve it in its purest state. For this purpose I would strenuously recommend the use of wells and *buckets*, although water may be obtained with much greater facility by the aid of *pumps*. As pumps very much lessen the manual labour in procuring water, they certainly answer valuable purposes, except for family uses. It is well known that motion constitutes the life, and conduces essentially to the purification of water. As pumps receive the water near the bottom of the well, by means of holes in the penstock, the water in the well undergoes very little agitation. This stagnant state of the water is soon accompanied with a disagreeable smell and taste; and the water becomes coloured. These changes not unfrequently are very erroneously imputed to the wood of which the pump is made, when, in reality they are all consequences of the stagnation of the water. Water in this state, becomes extremely unwholesome, and insalubrious, and is deprived of its most essential qualities for washing. How often have I lamented the ruin of excellent wells of water by the introduction of pumps! They, however, might be again restored to their former purity and sweetness, by the use of the bucket.—Good water may be designated by its transparency, and its exemption from smell or colour.

Although the motion of the water, produced by the bucket, is calculated to preserve its salubrity, still much care and vigilance are required in guarding against poisonous and nauseous reptiles which so frequently infest wells. Among others perhaps the lizard is as frequently an unwelcome tenant as any. This reptile sometimes grows to a large size, becomes spotted, and is reputed extremely venomous. The best method that I have ever discovered to destroy these troublesome animals, which more or less infest more wells, is the following: Put some vessel into the bucket, containing sulphur, with some combustibles, and after setting fire to these, lower the bucket into the well. If the well be deep, it may be necessary to recruit the fire a number of times, as the moist and dense air will serve to extinguish it. But if you succeed in filling the well with a strong sulphureous smoke, you will drive these animals from their haunts in the walls to the bottom of the well, from whence they may be easily taken when the smoke subsides.

Wells that have ever been good, may again be restored, by often exhausting the water.—The more water is taken from wells, the purer and better the water.

Suppose that a farmer consumes thirty cord of wood yearly.—A green cord of wood is computed to weigh fifty-six hundred weight, and a cord of dry wood thirty-eight hundred weight.—It appears, he that sleds green wood sleds twenty-seven tons of water more than the other; and when we come to reflect that it often times happens in our hill towns that they sled the wood half a mile up hill—surely it is time farmers began to think about things that differ, and word head work as well as hand work, if they would thrive.—*ibid*.

NEW ENGLAND FARMER.

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VOL. I.

BOSTON, SATURDAY, NOVEMBER 16, 1822.

No. 16.

TO THE EDITOR OF THE NEW ENGLAND FARMER.

Sir—Having seen in your papers some observations on the grafting and raising of apple trees, in which I have had much experience, am free to communicate the result of my observations.

I differ in opinion from such European authors as recommend the ground for nurseries to be made extraordinarily rich, as I have observed that young trees, transplanted from a richer to a poorer soil, do not flourish or become so productive as such as are transplanted from a poorer to a richer soil.

The seeds of apples will not produce the same kind of fruit; that I have fully proved, by one experiment. I raised in my garden, from the seeds of one favorite apple, ten trees, that after being transplanted in my orchard, grew to bear fruit. Not one of them resembled their mother apple, and no two were like each other. Seven of them produced very small sour apples, some white, some striped, some yellow, some early, others late. Those seven trees I marked for grafting. Of the other three, the largest and most thrifty tree produced an excellent, pleasant, long, striped apple, of good size, very mellow and juicy in autumn, neither sweet nor sour. The next largest tree produced a red, sweet apple, about the shape and size of the flat pippin, and will keep in the winter near as well. The other, the smallest tree of the ten, which grew the longest time before it produced, bore large, yellow, flat, sweet apples, that weigh about one pound, and fall off in due time for drying or making cider.

I have estimated such parts of my orchard as have been planted with trees, without grafting, to average about three good and valuable kinds of apples, from every ten trees. I disapprove of grafting the trees, when small in the nursery, as we may cut off better fruit than we insert, and perhaps destroy some better and rarer kinds than are yet known.

I believe in Darwin's ideas, that the different kinds of apples have their certain age, after which they depreciate and expire, and that grafting is but an elongation of the same declining kind of tree—especially as the *Vandewater* that used to be so large and fine since my remembrance is now extinct, in the place of my nativity, with a bitter rot, and the *flat pippins*, *Rhode Island greenings*, and *blue pearmains*, are very much depreciated in size and flavor.

At an early period of life, I was instructed in the practice of grafting, and thought I understood it perfectly, but a circumstance took place to convince me to the contrary, by some important facts in that art that should be generally known.

Thirty-five years ago, last winter, I was travelling in the upper part of Maryland, near the banks of Potomac river, and was informed that they had a curious old German doctor, a man of great science, that had paid much attention to orcharding;—that he had made between 200 and 300 acres of grafted orchard, and made vast quantities of cider all winter to supply the cities of Baltimore and Alexandria, besides feeding

and fattening a large stock of creatures. I turned out of the road and went to see him, and was surprised, as I rode to the door, to hear him tell his negro, in German, to give my horse half a bushel of sweet apples. His situation was on lime stone land, of a S. W. descent—some very rough—but his trees appeared to grow well amongst the rocks. In places where the ground suited he irrigated it with lime stone springs, for mowing land. His orchards were too extensive for my view. He had a number of large frame buildings, in which he had vast quantities of apples gathered to freeze, and said that apples after being frozen made the most and best cider. It was a mild thawing time, and he had abundance of people making cider. They ground their soft apples under large wooden wheels, turning in circular troughs. On the beds of the presses they had frames of slats in which they put straw to retain the soft pomace. Their presses were long beams, say 60 feet, raised and drawn down with levers. As the establishment stood on descending ground the cider ran from the presses in troughs, and passed through several strainers before it entered the casks.

He informed me that he had been bred to orcharding in Germany, that he had raised and planted all his trees, and grafted the greater part of them, after they began to bear, if he disliked the fruit.

I observed that I thought the season would be too short for grafting so many trees. He told me that it might be performed any time in the fore part of summer, if a wet growing time, and I would observe the following directions:

1st. Be careful not to loosen the bark of the stock in splitting it; and the safest way to guard against that is to split the bark with a sharp pointed knife, before the splitting of the stock.

2d. As after the leaves are grown it is not expected to use scions from a distance, but to cut them out of the orchard as wanted, be sure in selecting the grafts to cut them in such manner as to always take the bulge, between the year's growth, to shave and set in the stock, as in that joint or bulge, between the years growth, the wood is curled, open and porous, to receive the sap readily from the stock, and such scions will grow and flourish—when if taken from any other part of the twig they would not grow.

3d. The clay should be very fine and tough, and pressed and bound water tight round the stock below the split to retain all the sap that oozes out to support the graft.

By strictly adhering to this German science I have grafted several apple trees as late in the season as the latter part of June, that flourished and grew well, and are the best of bearing trees.

From all the experiments that I have tried in raising orchards, I would advise setting out the trees, and seeing a sample of their fruit before grafting, as all the best kinds of apples were at first natural, and perhaps by such a general trial some better kinds may appear than yet known.

I would also advise in grafting such bearing trees, to only take off half the top in one sea-

son. I have often taken off the whole, and if the season is wet they have done well, but if the season proves hot and dry, the trees generally die, or the sun kills the bark on the south sides of them, and then they are ever after defective; a rot takes place, and such trees generally blow down.

I have also observed that apple trees grow and bear the best when planted beside a stone wall, more especially these late seasons of great drought, that in parts of the country where the fences are generally of stone, abundance of apples might be raised without the trees incommoding the plough, and where there is only one row of trees across a field they may be planted within 15 or 20 feet of each other. In planting trees by a wall I would recommend as much as may be, to plant them on the north sides to keep the blossoms back and secure from the late frosts.

SAMUEL PRESTON.

Stockport, Pa. Oct. 19, 1822.

FOR THE NEW ENGLAND FARMER.

FROM A CORRESPONDENT IN MAINE.

Mr. Editor,

I have been taking a tour of a few weeks, from the tide waters of the wild and turbulent Androscoggin, along its banks to the high lands of Maine. It was a novel sight, when I obtained any view of the river, to contemplate its banks, and the rocks in its bosom, covered and heaped with mill logs: This I have witnessed sixty or seventy miles from its mouth. The mill men there depend entirely on a freshet to waft their lumber down. There has not been any of sufficient height this season, and mills that would cut two hundred thousand feet of boards a day have done nothing for the season.

The banks of this river are high and forbidding, excepting below stupendous falls, where the water seems to rest from its labor. It is here that we find the intervals, made, or alluvial land, which bears a heavy and almost certain crop of almost every species of vegetable. The intervals at Durham is extremely beautiful; so is the extensive one at Jay Point, second to none I ever saw, excepting the Ox-bow at Newbury, Vt. One farmer owns 300 acres of land, under improvement, and can easily cut 200 tons of hay in a season. He tells me the made soil is from six to thirty feet deep. As you recede from the sea-board, clay almost entirely disappears. The soil of the high lands is generally of yellow loam, with a gravelly bottom, and is excellent for grazing. Barley, an almost certain crop on our sea-board, was fine this year. Rye, through the country, a middling crop. Wheat, miserable, that lurking enemy at the root destroyed many fields entirely; it is a great desideratum with the farmer to find a remedy. Oats, a great crop. Potatoes, on the sea-board, good; on the high-lands, very much stricken with rust, though nearly a common crop. Buck Wheat produces well, and I was pleased that provident farmers had sowed it in sight of their bee-hives. Notwithstanding the despair of the first week in July, I am told there has not been so great a crop of hay for

twelve years. The fall feed never was better. In the new settlements, Clover Seed is a staple article of exportation. It was excellent this year. In this fine grazing country, they are now gathering their droves, mostly of young cattle, for the Massachusetts market. It has been a choice season for the dairy women. Their cheese, though not always equal to the Rhode Island, is not far inferior. Their butter stands unrivalled. I have had the honor of visiting a number of dairy rooms in the neighborhood, and from their reports can come pretty safely to this result, viz. That from eight good cows they have averaged a ton of butter and cheese this season. Mr. Thompson, of this place, has made over a ton, and 1000 lb. of his cheese is of new milk, and looks very fine. From his statements, and those of others, I have come to the above-mentioned ratio. There are nine farmers in this neighborhood whose amount of stock in cows is 33 cows. They have therefore made eleven tons of butter and cheese this season. Mr. Ira Thompson, of this place, has raised an apple weighing 25 ounces, and measuring 15 1-2 inches in circumference. The harvest of apples was never so great. The young orchards here are rapid of growth, and bending to the ground with fruit. A number of thousand bushels of the New York russets have been transported from this place and Turner to Hallowell, for the New Orleans market.

SPECTATOR.

Livermore, Oxford Co'y. Oct. 23, 1822.

FACTS AND OBSERVATIONS RELATING TO AGRICULTURE & DOMESTIC ECONOMY.

ON REARING CALVES.

Boil one quart of flax seed in six quarts of water for ten minutes, and it will become a good jelly when cold. Give this jelly to calves with hay tea, three times a day. Mr. Thomas Crook, a writer in the 5th vol. of the Transactions of the Bath Society, asserts that he weaned a great number of calves with this composition; and adds, "My calves are kept in a good growing state, and are much better than my neighbors that are reared by milk—they do not fall off so much when they come to grass."

TO MAKE HAY TEA FOR CALVES.

Take about a pound of red clover hay, well got in, and six quarts of clear spring water; boil them together till the water is reduced to four quarts; then take out the hay and mix a pound of barley, oat, or bean meal, amongst a little water; put it into the pot or chaldron while it is boiling, and keep it constantly stirring until it is thickened. Let it cool, then give it to the calf, adding as much whey as will make a sufficient meal. This is a cheap way of rearing calves, and the valuable article of milk may be saved for other purposes.

American Farmer.

DIRECTIONS FOR FEEDING CALVES.—FROM REES' CYCLOPEDIA, &c.

Where it is the custom to rear calves with skim-milk, it should always be boiled, and suffered to stand until it cools to the temperature of that given by the cow, or in a trifling degree more warm, and in that state given to the calf. Milk is frequently given to calves when warmed only; but that method will not succeed so well

as boiling it. If the milk be given over-cold it will cause the calf to purge. When this is the case, put two or three spoonfuls of rennet in the milk, and it will soon stop the looseness. If, on the contrary, the calf is bound, bacon broth is a very good and safe thing to put into the milk. One gallon, or rather more, of milk per day will keep a calf well till it be thirteen weeks old. A calf may then be supported without milk, by giving it hay, and a little wheat bran once a day, with about a pint of oats. The oats will be found of great service, as soon as the calf is capable of eating them, in promoting its growth. The bran and oats should be given about mid-day; the milk in equal portions, at 3 o'clock in the morning, and 4 in the afternoon. But, whatever hours are chosen to set apart for feeding the calf, it is best to adhere to the particular times, as regularity is of more consequence than is generally supposed. If the calf goes but an hour or two beyond its usual time of feeding, it will feel uneasy, and pine for its food.

Calves reared in this manner are to be enticed to eat hay, or some other similar material, as early as possible; and the best way of doing this is to give them the sweetest hay in your possession, and but little at a time. Turnips or potatoes are very good food as soon as they can eat them; and they are best cut small and mixed with hay, oats, bran, and such articles, at the time of their being given. When bacon or pork is boiled it is a good way to preserve the liquor or broth, and mix it with milk for the calves.

It has been suggested that it is sometimes a good convenient plan, to bring up calves under a sort of foster mother; an old cow with a tolerable stock of milk, will suckle two calves, or more, either turned off with her, or at home, keeping them in good condition, until they are old enough to shift for themselves; they ought to suck the first of their mother's milk, for two or three days, although many are weaned without ever being suffered to suck at all. Calves, whether rearing or fattening, should always suck before milking, the cow being milked afterwards, as the first and thinnest of the milk is sufficiently rich for them. Old milk often scours very young calves; but the effect generally goes off without any ill consequence. Skimmed milk and second quality of flour are sometimes made use of. The large short horned breed of calves mostly consume, daily, at three meals, three quarters of a pound of flour each, boiled up in skimmed milk or other liquid.

In the Rural Economy of Norfolk, it is remarked by Mr. Marshall, that some farmers raise their calves all the year round. Others rear in winter only. In general, however, they begin early in winter to rear their calves, some as early as Christmas. No distinction is made between males and females, both being equally objects of rearing, and are both occasionally subject to castration, it being a prevailing custom to spay all heifers intended to be fatted at three years old.

Among other substitutes for new milk, the method proposed by the duke of Northumberland is to take one gallon of skimmed milk, and to about a pint of it add a large table spoonful of molasses, stirring it till it is well mixed; then take an ounce of linseed oil cake, finely pulverized, and with the hand let it fall gradually in very small quantities into the milk, stirring it

in the mean time with a spoon or ladle, until it be thoroughly incorporated; then let the mixture be put into the other part of the milk, and the whole be made about as warm as new milk, when it is first taken from the cow, and in that state it is fit for use. The quantity of oil cake powder may from time to time be increased as occasion may require, and as the calf becomes inured to the flavor of it.

The method of weaning calves is thus prescribed by an English writer. The most suitable season for that business is the early part of the spring, as such calves as are weaned at a late period seldom attain any great size. Having a cow suited to the purpose, which drops a calf, let it be suckled in the usual mode, till it hath completed the third week of its age, when instead of turning it to the cow, it is to be suckled by thrusting its head into a pail of new milk, and the finger of the person who directs the business is to supply the place of a teat. At first the calf may be rather awkward at sucking the finger, but this will soon become familiar, and after a while a lock of hay may be substituted for the teat; and as the calf advances in age it will drink the milk without assistance. At the season when the calf is thus weaned from the teat, it ought to be turned abroad, in the day time, into a small close or orchard near the yard, where there is a good bite of grass. As there will, generally, be more than one calf weaned in a season, they will each be company for the other, and become, in a short time, reconciled to their situation. This pasture should be at some distance from that wherein the dams are turned, and there should be neither ponds nor ditches, nor any other annoyance, which may endanger the lives of these youthful animals; and in order to habituate them still more to their pasture, their pottage should be carried clean to them at their feeding hours. For the first month or six weeks the calves ought, every night, to be brought out of the meadow and lodged in pens: but after this time, they may be left in their pasture, as well in the night season as in the day, and at this time their food may be lowered by degrees, till it be reduced to water only, for when the calves get to the age of twelve or fourteen weeks, they will no longer require the aid of this sustenance, but will be able to satisfy their appetites by grass. Care, however, must be taken through the summer that they be frequently shifted from one pasture to another, in order that they may be kept in good flesh, and enabled to grow with celerity. In the latter part of September the calves should be taken into a yard; and if they were allowed the indulgence of a small close by themselves, it would be still better. And here their taste should be gratified with the best and sweetest hay that can be procured, with an outlet on a dry pasture, where, in fine open weather, they may be permitted to enjoy themselves; and it would redound greatly to their welfare, if, on the approach of winter, a shed was to be erected for them to repose in during the night, and for shelter in tempestuous days. So essential are warmth and good living to young animals of every description, that the care, which has been taken of them in their early days will be manifest in every state of their future growth. At two years old the heifer may be suffered to take the male, but it would be still better for the cow, and more to

the interest of the farmer, if this was not permitted till the animal was three years old.

Mr. Beatson, in a useful communication to the British Board of Agriculture, observes, "that the only reason he can assign why calf pens should be within the cow-house is, that it saves a little trouble to the dairy maid, by having a shorter distance to carry the milk. In general, however, it is a plan not to be recommended, as every person, who has had any experience among cows must know how naturally and forcibly a newly calved cow expresses her attachment to her calf; with what care and anxiety, if permitted, she licks it all over, and uses every exertion to protect it from injury; how the tender calf clings to its affectionate mother, as if sensible that to her alone it can trust for protection; and yet the poor helpless creature is dragged away, and placed, perhaps, within its mother's view, or at least within her hearing, as if on purpose to augment her sufferings. Its doleful cries keep alive the pangs of the unhappy cow; she struggles to break the chain that binds her fast, and seems restless and uneasy whenever approached. In such a state of agitation it is impossible she can ever feed well, or give that quantity and quality of milk she would otherwise furnish. Where there are many cows kept, and perhaps several of them lately calved, a single calf may keep them all in this restless state; to remedy which the best way is to have the calves at such a distance, or at least so thick a wall between them that the cows cannot hear their cries. The cow will then soon forget her calf, and will both feed and milk the better for it; therefore they should be as near as may be without being liable to the above objections.

The principal thing to be observed in the construction of calf pens is the laying of the floor. This should be made of lath or spars, about two inches broad, laid at the distance of an inch from each other upon joists, so as to make the floor one, two or three feet from the ground, as the situation will admit. This not only keeps the calves quite dry, by allowing all the moisture to pass immediately away, but admits fresh air below the bedding, and thereby preventing that unwholesome disagreeable smell too often found among calves. The place below the floor should be frequently cleaned, as well as the floor itself, whenever it becomes wet or dirty; but it is not right to allow the litter to increase to a great thickness, otherwise the moisture will not so easily pass through. Calf-pens are, however, too often made without this sparred floor, and the fresh litter is always laid on the old, till the calves are removed, which is a slovenly practice, and not by any means to be recommended.

Dr. Willich's Domestic Encyclopedia states that "in order to make calves fine and fat, the best and most efficacious way is, to keep them as clean as possible, by elevating the coops in such a manner that the sun may not have too great power over them, and to such a height above the level of the ground that their urine may pass off; by giving them fresh litter every day, and by suspending over the coop a large chalk stone so that they can easily lick it. Besides this, it is usual to bleed them when they are about a month old, and again just before they are slaughtered; which practice contributes in a considerable degree to the beauty

and whiteness of the flesh, and is therefore more frequently repeated by some persons; but this is not altogether necessary; twice bleeding being fully sufficient for that purpose, in the opinion of the most experienced breeders.

A METHOD OF MAKING GOOD BUTTER FROM THE MILK OF COWS FED ON TURNIPS.

Let the vessels which receive the milk be kept constantly clean, and well scalded with boiling water. When the milk is brought into the dairy, with every eight quarts mix one quart of boiling water, and then put it up to stand for cream.—*Hunter's Geographical Essays.*

A METHOD OF PRESERVING CREAM.

Take twelve ounces of white sugar, and as many grains of finely powdered magnesia, and dissolve them in a small quantity of water, over a moderate fire. After the solution has taken place, twelve ounces of new cream should be immediately added, and the whole uniformly mixed, while hot. Let it then gradually cool, and pour it into a bottle, which must be carefully corked. If kept in a cool place, and not exposed to the air, it may be preserved in a sweet state for several weeks and even months.

Domestic Encyclopedia.

HOW TO SAVE HORSES FROM BARNs ON FIRE.

Horses are frequently burnt to death when barns or stables are on fire, owing to the impossibility of leading or driving them out of the building, while their eyes are dazzled by the blaze. But we are assured that by simply covering their eyes with a bag, a coat, or a pocket handkerchief, they may be led out of danger without trouble or difficulty.

METHOD OF PRESERVING YOUNG PLANTATIONS OF TREES FROM BEING INJURED BY HARES OR RABBITS—BY WILLIAM PATTENSON, ESQ. OF BORDEN, KENT.

From the Transactions of the Society for the Encouragement of Arts, &c.

Hares, rabbits and rats, have a natural antipathy to tar; but tar, though fluid, contracts (when exposed to the sun and air for some time) a great dryness, and a very binding quality; and, if applied to trees in its natural state, will occasion them to be bound. To remove this difficulty, tar is of so strong a savour, that a small quantity, mixed with other things, in their nature loose and open, will give the whole mixture such a degree of its own taste and smell, as will prevent hares, &c. from touching what it is applied to.

Take any quantity of tar, and six or seven times as much grease, stirring and mixing them well together; with this composition brush the stems of young trees, as high as hares, &c. reach, and it will effectually prevent their being barked. I believe, if a plantation of ash (which they are very fond of) were made in a rabbit-warren, this mixture would certainly preserve it. These animals do great mischief amongst flowering shrubs, and are particularly fond of Spanish broom, Scorpion senna, and evergreen Cytisus. I have had those shrubs eaten down to a stump; but, as the mixture cannot be conveniently applied to them, I have enclosed their branches with new tar twine, putting it several times round the shrub, which has had the desired effect. Tar twine, by being exposed to the air and rain, will lose its smell, conse-

quently must be removed as occasion requires; but the mixture is always to be preferred, where it can be used.

It is probable that the abovementioned composition would preserve young trees in nurseries from the depredations of the field mouse, which are often fatal to young fruit trees in many parts of the United States.

Ed. N. E. Farmer.

SCAB IN SHEEP.

Every part of a sheep's body is liable to be attacked with this disease, which may be radically cured if attended to. It is more obstinate on the lips and nose, than any where else, because the animal rubs those parts while eating. The cheapest and simplest remedy, is an ointment composed of three parts of grease to one of turpentine.

FISH, FOOD FOR SHEEP.

It is a fact, though not generally known, that sheep will greedily eat any kind of salted fish, whether dry or pickled, although dry seem the most suitable for them; and it is found by experience that sheep that have as much fish as they can eat are always healthy, have good lanibs, and do not loose their wool; and require much less other food. It is not expected that farmers remote from the sea-shore can afford their sheep as much fish as they would eat; but, if they give them fish instead of giving them salt, they will find a great advantage. Smoked Alewives and Herrings are most convenient for them; larger fish should be cut or broken in small pieces. The cheapest kinds of fish, such as scale of all kinds, broken, refuse, and even those that are partly damaged, if they are only salt, will answer the purpose.

It is generally the case with herring catchers that they are obliged to cull out and throw away great numbers, sometimes half they take, because they are to bear inspection: such might be salted and smoked or dried in the sun, put up in dry casks, afforded at a low price—by which means, thousands of barrels might be saved which are now suffered to rot on the shores.

TO PRESERVE POTATOES WHICH ARE FROZEN.

Cover them, while frozen, with two or three feet of sand or earth, and let them remain till thawed. The watery part of the potatoe, when converted into ice, occupying a larger space, removes the solid parts to a greater distance from each other, occasioning thereby a partial disorganization which, like animal inflammation from cold, will end in putrefaction, unless a low temperature is maintained until the solids gradually regain their former powers.—*Farmer's Mag.*

They may be thawed in cold water, which will take out the frost without injuring the vegetables.

Ed. N. E. Farmer.

Live constantly in the unshaken belief of the overruling Providence of an infinitely wise and good, as well as Almighty Being; and prize his favor above all things.

Accustom yourself to temperance, and be master of your passions.

Be not too much out of humor with the world, but remember, it is a world of God's creating, and however sadly it is marred by wickedness and folly, yet you have found in it more comforts than calamities, more civilities than affronts, more instances of kindness towards you than cruelty.

From the Christian Register of November 1.

GARDINER LYCEUM.

MR. EDITOR—I observed in the Hallowell Gazette of the 12th ult. an address to the public, from the Trustees of the Gardiner Lyceum. The knowledge that such an institution is about to be established, cannot be too widely diffused. That our colleges are useful and necessary to those who intend to pursue one of the learned professions cannot be denied; but they are by no means calculated to supply that particular kind of knowledge which is necessary to the Farmer and Mechanic.

The utility of an institution like the Lyceum will be best shown by a few extracts from the address.

The small number of mechanics acquainted with those principles of natural philosophy, upon which the successful operation of their arts depend, has been long a subject of regret. Artists, it is true, are found in various departments, who, by means of uncommon natural talents, are able to acquire the knowledge of those scientific principles, which are most needful to them; but those to whom nature has been less liberal, can only execute in the way in which they have been taught, and while they adopt the rules and recipes of their predecessors, they are obliged to perform much unnecessary labor, because they are unable to distinguish the essential from the accidental parts of their processes. And even those of superior endowments are obliged to spend much labor in acquiring principles, which are among the first rudiments of a regular education. Nor have our farmers hitherto had that knowledge which would enable them to improve the powers of their soil, or the machines necessary for cultivating it, and preparing their produce for the market. The knowledge necessary for these descriptions of persons is confined to colleges; but science is there taught, not to persons who are to make a practical use of it in after life, but as part of a course of general education to those who are destined for the liberal professions. The details of the practical application of science to the particular arts would be altogether inconsistent with the objects of these institutions. Neither could those who are to support themselves by manual labor, spare the time or meet the expense of a collegiate course, with its long train of preparatory studies, particularly when a large part of that course would not only be useless, but would serve to give them a distaste for their future pursuits in life.

The practical utility of science cannot be doubted, in an age where its investigations have produced such astonishing improvements as in the present. There is scarcely an art which has not directly or indirectly received from it important services; for science must necessarily be the foundation of every art. Not that the arts originate in the speculations of the philosopher, or cannot be practised without an acquaintance with science. On the contrary they frequently owe their beginning to accident; and the knowledge of the art is but the knowledge of a few insulated facts. These facts, observed by the man of science, lead him to an investigation of their nature, and the laws according to which they are produced. He discovers what is necessary and what is accidental in the process, and thus infers an easier and cheaper mode of arriving at the same result. Chemistry, as a science, has scarcely existed half a century, and yet no science can so proudly boast its contribution to the arts. To many trades, it is absolutely necessary, and to almost

all, highly beneficial. The tanner, the bleacher, the dyer, the druggist, the manufacturer of pot and pearl ashes, of soap, of copperas, and all the salts of commerce, of spirituous and fermented liquors; all these, and very many more, find their arts dependent upon chemical processes. The mason needs chemistry to mix properly the ingredients of his mortar, the blacksmith to temper his edged tools, and even the baker to ferment his bread. It is true, these arts may be, and are successfully practised by attentive and intelligent persons, ignorant of science; but a knowledge of chemistry would enable men of an inferior class of mind to become skilful; would make the success of all more certain; enable them to investigate the causes of occasional failures, and to guard against their recurrence.

Agriculture, too, depends much upon chemistry. It is the business of this science to investigate the nature of soils, the causes of their fertility or barrenness, to ascertain the composition of manure, and the kind best suited to give fruitfulness to each kind of soil. The experience of Lavoisier, who in a few years doubled his crops, is sufficient to prove the utility of chemistry, when applied to the cultivation of the earth.

With a view to furnish to farmers and mechanics the education here represented as so useful, the Gardiner Lyceum has been established; and the course of study will be arranged with a particular reference to the wants of those classes, for whose particular benefit it is designed. As soon as a suitable apparatus can be procured, lectures will be given upon the sciences there taught; and the application of those sciences to the arts will be illustrated as fully as the nature of the lectures will admit. As fast as the funds of the institution will allow, models will be procured of the best machines employed in the useful arts. Specimens will likewise be collected of the natural productions of the country, as opportunity offers; and they will be deposited in a cabinet in the Lyceum.

Candidates for admission to the Lyceum will be required to produce certificates of good moral character, and will be examined in the four fundamental operations of arithmetic: addition, subtraction, multiplication and division, both upon simple and compound numbers, and in reduction. It is also very desirable that English Grammar should be understood by those entering the Lyceum; and although the trustees do not at present consider it as an indispensable requisite, yet they hope it will have been studied by persons applying for admission. The studies in the Lyceum will be—

For the first year—Arithmetic, Algebra, Geometry, Trigonometry, Mensuration of Surfaces and Solids, and Book-Keeping.

In the second year—Surveying, Navigation, Mechanics, Hydrostatics, Pneumatics, and Chemistry.

No student will be required to attend to all the branches of instruction for the second year, but only those which are best adapted to his future wants. He will also be instructed in the practical application of the knowledge thus acquired to the particular art which he is to practice. Two years will complete what is deemed an essential course; but instruction will be afforded to those who wish to continue their studies another year.

The studies of the third year will be—

Other branches of Natural Philosophy, the higher branches of Mathematics, Natural History, and the first volume of Stewart's Philosophy of the Mind.

There will be regular exercises in English composition; and each Monday morning all the classes will be instructed in the principles of natural and revealed religion.

The trustees consider the location of the Lyceum in the town of Gardiner as peculiarly fortunate, from its central position, on a navigable river, in a populous neighbourhood and fertile country, where commerce is continually extending, and in a town possessing uncommonly fine mill privileges, and which already offers to the student in mechanics the exhibition of a greater variety of machinery moved by water than can be found in any other town in the state."

[The Lyceum was incorporated at the last session of the Legislature. The trustees are about erecting a stone edifice for the accommodation of the students, and the institution will go into operation some time in January next, under the superintendence of the Rev. Benjamin Hale.]

"The trustees conclude their address with expressing their confidence, as they are engaged in an object calculated to meet the wants of a state which possesses all the requisites for becoming great, and distinguished in agriculture, manufactures, and commerce, that they shall not want the support and encouragement of the public. They are engaged in no private enterprise. They expect to profit no particular class of men, but to aid those who form the bone and sinew and muscle of the body politic. They aim at the public good, and hope for the public patronage."

F.

From the National Aegis.

MINERALOGICAL.....No. I.

The objects of an enlightened system of agriculture are philosophical, so far only as they follow nature. Art may plant, industry may water, but nature gives the increase. The plough and the cart may have been used, according to the best modes of improvement, and yet the tracts of land on which they have been employed, may produce but miserable crops. We seldom have the charity to attribute the sterility of farms, to any thing but the indolence of the proprietor; when, perhaps, the true cause is in the nature of the soil itself. The husbandman may waste the sweat of his brow, and the toil of his hands for years, by perseverance in the same course which, with his neighbours, gives a rich reward. To remedy any evil, it is first necessary to seek out its cause. Now, a little of that knowledge derived from books, against which a prejudice has been so unreasonably entertained, would inform the farmer that the reason why his crops were not as good as another's, must be, that he did not adapt the plants to their proper soil. He would learn that the same labour which has been bestowed without benefit, would, if properly directed, have filled his barns with abundant harvests, and converted his barren plains into a garden.

How far the same laws regulate vegetable and animal economy, has not been exactly determined. Certain it is, that there is an analogy in the laws, which regulate both kingdoms.

If the stock of the husbandman requires feeding, and as he would not give his oxen sulphuric acid for drink, or arsenic for a baiting, neither could he treat his field of rye or wheat in the same manner. Those poisons which are most deleterious, belong to the classes of Minerals. All the metals which are so numerous and so widely disseminated, are highly prejudicial to animal life, and that they are injurious to plants, may be inferred from the facts, that, districts in which mining is pursued to the greatest advantage, where the greatest wealth abounds in the bosom of the earth, are barren and sterile on the surface.

It is an hypothesis now generally received by writers, that different plants, require different nourishment. If the growth of the forest is succeeded, not by the same tree, but by a species totally different from the former occupant of the spot, it is believed to be, from a wise provision of Nature, requiring that the plant whose peculiar food was consumed, should seek a more favorable situation. Most persons who are observant of the phenomena exhibited around them, must have remarked the daily changes taking place in the growth of our forests. The lofty pines, which at one time formed the most numerous variety of our timber trees, have almost disappeared, and instead of them, the oak and the walnut have sprung up and occupy their places in the woods. The explanation of this fact is not difficult upon the theory to which we have alluded. Let us suppose a soil, constituted of resinous, nitrous, and alkaline earths. If the resinous particles existing in the soil are the food of the Pine and necessary to its life and vegetation, it is evident that where these particles shall have been exhausted by the continual draughts made upon them, for the supply of so many roots and branches, the individual can no longer exist.* If young trees of the same species should rise from the seeds deposited near the parent trunk, they must soon perish, from the want of the support essential to their healthy state.—The soil according to the supposition still contains nitrous and alkaline particles. Assuming, that the first of these, are the proper nourishment of the Walnut, that tree will flourish upon the spot where the Pine once stood, until these are exhausted, when it must share the fate of its predecessor. Two of the constituent parts are now consumed, on the third the Oak may subsist and strike its roots deep and shoot its branches high. This exemplification is selected as a familiar one. The application is obvious to other examples. It shows the close connection that should subsist, between the practical and the scientific man. It evinces conclusively the beneficial results that will attend the prosecution of Chemical and Mineralogical pursuits. If the wheat is blasted, or its produce be light and ill-conditioned, the fault is more likely to be found in some quality of the soil prejudicial to that grain, than in some harmless insect or innocent

shrub. If the food necessary for the Rye be exhausted by a single crop, it would be folly to expect a second to thrive on the same field. If properties noxious to the Rye, are beneficial to the Indian Corn, then, the commonly practised succession, which placed that grain before the other, is founded on sound reason. It is true, that experiment has not, as yet, rendered these principles "doubly sure;" but this should only be an incentive, urging the curious to investigations so important to the good management of rural concerns.

Men who have not been accustomed to scientific pursuits, are usually frightened and discouraged, by their apparent abstruseness and difficulty. To such, abstract studies must be divested of some of their rigor, or they will never be persuaded to follow them. It cannot be expected, nor is it wished that the intelligent, practical farmers of the country should waste their time, and perplex their minds, with deep inquiries into Mineralogy, or be able to take rank with the Werners, the Hany and Cleavelands, who have adorned and improved that department of knowledge. But it is desirable that they should be acquainted with so much of it, as to be able to distinguish the several mineral productions of their lands and be acquainted with their several properties. The practical agriculturist, is ignorant of many sources of revenue which he might possess. His lands may contain treasures, of which he has never dreamt. His plough daily turns up substances, which would be valuable, were he only acquainted with their worth. Those tracts which are parched by the summer sun, and which, to his eye, are sterile and barren, may contain hid in their bosom, mines and metals which would amply repay the toil and expense of exploring them.

In recommending Mineralogy to attention in its connection with agriculture, it will be proper to state the grounds of the faith that is in us, of its usefulness. This shall be attempted in a subsequent number. A FARMER.

From the Hallowell Advocate.

In a late Advocate was published a new Rule for gauging casks, given by SAMUEL PRESTON, Esq. of Stockport, Pennsylvania. This rule was first published in the *New England Farmer*, and is recommended by its author as useful to the farmer in ascertaining the quantity of cider he makes, and exceeds in accuracy and brevity any other rule before employed. The rule is as follows:—

1. Multiply the mean diameter of the bung and head diameter by itself.
2. Multiply the product by the length of the cask.
3. Multiply that product by 34.
4. Strike off four decimals, and you will have the true contents in gallons and decimal parts of a gallon.

The admeasurements are to be taken in inches and tenths of inches.

The author of this rule gives no explanation of it; but calls upon the mathematical student to give an explanation or demonstration of it.

As the reasons of all parts of the rule may not be readily hit upon, and to know the rationale on which it is founded may be gratifying to those who may happen to make use of the rule, the following explanation is given, adapted to any common understanding.

As necessary to the explanation of the rule, we premise the following principles—to obtain the cubic or solid contents of a regular body, you must first get the superficial contents of a base of it. For example, to obtain the cubic contents of a parallelopipedon, or, in other words, of a square stick of timber of equal size from end to end, you first get the superficial contents of one end by multiplying one side of the square into itself; then multiply the superficialities of the end by the length of the stick, and you will have the cubic contents in the same denomination of measure as you have employed in the previous work. If the stick be of unequal dimensions, you must take the mean of the diameters in different parts, and from this mean diameter obtain a mean superficialities, and multiply this superficialities by the length of the stick for the solid contents.

To apply these principles to the first step in the above rule. A cask, being a cylinder of unequal diameter, you will first take the mean of bung and head diameter for the side of a square, equal to said mean diameter. You then multiply this mean diameter into itself, and this gives you the superficial contents of a square made by the mean diameter. Then the 2nd step in the rule, viz. multiplying this superficialities by the length of the cask, gives you the solid contents of a parallelopipedon (of which the form of a square stick of timber is an example) whose base or end is a square of the mean diameter of the cask, and of the same length as the cask.

The reason of the 3d step in the rule is not so apparent as the preceding steps, and requires a more particular explanation—and as the 3d and 4th steps are so connected in principle as to be incapable of explanation separately, we shall consider them together.

It must be recollected that the process thus far explained, has given us the solid or cubic contents of a square stick of timber, whose diameter is equal to the mean diameter of the cask whose contents are to be ascertained, and whose length is the length of that cask; and that the object to be obtained by the 3d and 4th steps is to get the cubic contents or capacity of the cask in gallons and decimal parts thereof. Now it is evident from inspection that a square stick of timber, whose diameter is the mean diameter of the cask and whose length is the same must be greater in solid contents than the cylinder whose diameter and length is the same. Then we must reduce the contents of the square stick of timber already obtained to those of the cylinder of the same diameter and length—that is, of a cylinder whose diameter is the mean diameter of the cask. Now the cubic contents of the cylinder and the square stick have the same proportion to each other as the superficialities of their ends, viz. the circle and square, their diameters being the same. The superficial contents of a circle are to the contents of a square whose side is equal to the diameter of the circle as 7854 decimals to unity. Now then, we want to reduce the contents of the square stick to those of the cylinder. Therefore multiply the product of the 2d step by 7854 decimals and cut off four decimals in the product, which is the same thing as to multiply by $\frac{7854}{10000}$, this being the vulgar form of that decimal; as in a vulgar fraction, you always in multiplication multiply by the numerator, and divide by the

* Note by the Editor of the N. E. Farmer.—Resinous particles are formed in plants during the process of vegetation, being extracted from hydrogen, one of the chemical constituents of water. "All kinds of vegetables, when assisted by the rays of the sun, have the power of decomposing water; during which decomposition the hydrogen is absorbed, and goes to the formation of oil and resin in the vegetable."

Parkes' Chemical Catechism, p. 54, 10th Ed.

denominator. This done, you would have the cubic contents of a cylinder equal to the cask in cubic inches. To bring this denomination into gallons, it would be necessary to divide by the number 231, this being the number of cubic inches in a Wine gallon.—But to save this long process of multiplication and division, adopt this rule, viz. *to multiply by the Quotient of a multiplier divided by the divisor by which the product produced by such multiplier is proposed to be divided, and you will have the same result.*

Now 31 is the Quotient of 7851 divided by 231. Therefore multiplying by 31 produces the same result as to multiply by 7851 and dividing by 231—taking care in the product to cut off as many decimals as there are in the multiplier 7851. And these are the reasons for the 3d and 4th steps of the rule. And the result is the contents of the cask in gallons and decimal parts thereof.—Thus we have the reasons of the rule.

HIID. ALIAS 4 BELLS.

From the American Farmer.

TO CURE BACON.—*Virginia vs. Burlington.*
Richmond Co. (Va.) Nov. 24, 1821.

MR. SKINNER—Having seen in the 20th No. of the 3d Vol. of your American Farmer, a refusal of one, who has been specially called on to communicate his knowledge or mode of curing Burlington hams, I cannot longer refrain from giving such information as I possess, in curing hams according to our Virginia mode, as practised by me for many years, and which on trial I am induced to believe, will be found fully equal, if not superior, to the Burlington, or even the celebrated Westphalia. This I do with pleasure, having no secret to preserve, being no “trucker or trader.”

My practice is as follows: first salt the pork by giving it a pretty good salting, and pack it away on boards or planks, with a slope sufficient to let the brine run off. In this situation it lies ten or twelve days, when it is taken up, and each piece wiped dry, with a coarse cloth, and to each ham is added a heaping tea spoonful of the best chrysalized salt petre, by sprinkling over it, and rubbing it well in with the hand. It is then re-salted again, and packed away on planks or boards, laid horizontally, or in tight casks, if you have them convenient, as it may then be an advantage to retain or preserve all the brine you can: whereas the first brine I have found from experience to be of great injury, as it tends to putrescence, and should by no means be reabsorbed by the meat lying in it after being extracted by the salt; as I conceive it to be that which produces the bugs and skippers in the meat after it has been smoked. The time of putting on the salt-petre is of much more importance than is supposed by those who have not made the trial, for if put on at the first salting, the meat is always dry, hard, and too salt; but why it has this effect, I am not chymist enough to determine. On giving the meat a second salting I add to the salt as much brown sugar or molasses as will moisten or damp it, and as much of the common or red pepper as will give the salt quite a red appearance. The pods are first dried before a fire or on a griddle, and then pounded tolerably fine in a mortar. The meat then lies about 5 or 6 weeks when each piece should be rubbed well with hickory ashes, and hung up to smoke with the hock downwards, which prevents its dripping and thereby retains

its juices. The Liverpool sack-salt is what I have generally used, and I think it is much to be preferred to any other.

The smoke is generally made from chips raked up from the wood-pile, with a little of the dust, dotted, or rotten wood with it, to prevent a blaze or clear fire, and too great a heat, saw dust of hickory or oak is still better to make the smoke, to which is added two or three pods of the red pepper each day.

After it is sufficiently smoked, which it will be in five or six weeks, if regularly attended to, it is taken down and packed away in casks or boxes, with hickory ashes, covering the meat entirely with them, and between each layer is put some thin slips of lath or boards to prevent each layer of meat pressing down and touching each other, and in the course of the summer it is taken out and sunned once or twice.

If it is intended for exportation, bran is the thing to pack it in, for shipping, especially if it is intended for a southern market. By this mode of curing my bacon has got the reputation (by those who have eat of it,) to be equal if not superior to any they have ever tasted. But I concur with Mr. Cox, the writer in your 20th No. of the third Vol. that “a great deal depends upon the nature of the flesh of the several breeds of hogs” and the manner of raising and feeding. From the experience which I have had I think a cross of one-fourth of the Chinese, on our common stock, which is a mixture of the English breed including the Parkinson, which we have among us, is the most delicate in flavour and taste, and easier to be raised and kept fat, consuming less grain. The meat of those which are suffered to feed in the fields and woods, with a little feeding with grain until they are put up to fatten, are far superior to those which are raised in the sty, and fed on grain and slops, as is the northern custom.—Their meat is much larger and coarser than ours, and may answer very well for salting and barreling up as pork, but by no means answers as well for bacon, being too coarse and strong in flavour. The manner in which our hogs are raised and fed, and their size, I consider the principal reason why our Virginia hams have been so much approved of, both in this country and in Europe. I have tried various ways to fatten hogs, after they have been put up for close fattening, but have never found any thing to equal Indian corn or meal; turnips, potatoes, peas, pumpkins &c. will do very well when they are first put up, but must be left off some weeks before they are killed, in order to harden their fat, and give it a superior flavour, by using Indian corn alone, with a little salt water, or a salt herring once or twice a week.

To make bacon of the most delicate flavour, the hogs should not exceed 160 lbs. in weight, nor 21 months in age, and it is for this reason, and the great economy in raising and feeding, as well as preventing their becoming mischievous and troublesome on a farm, that I approve of Col. Taylor's system of killing every hog on the farm every year that is ten months old and upwards, except the breeders. I have followed this practice for about seven years, and have found a considerable profit in it as hogs kept over two winters, are very unprofitable, and their flesh by no means as delicate and sweet. Hogs from 10 to 21 months old, with a little more than the ordinary keeping with us (which is

very ordinary indeed, as we generally leave them much to prog and shift for themselves will weigh from 120 to 180 lbs. and the sweetest and most delicate flavoured hams will not be found to exceed from 10 to 15 lbs. in weight even of hogs of their age, and when older they are much coarser and less savoury.

These, Mr. Skinner, are my ideas, obtained from experience and thrown together in a very home-spun manner, and should they on trial be found to please the palates of others and be generally adopted by them, I may be benefitted instead of injured, as was apprehended by a Burlington dealer, for as I sometimes travel from home, and am fond of good bacon, I may the oftener get a cut of ham after my own mode of curing. And with very great respect, and my sincere wishes for your success in your very useful paper,

I am your most obedient,

JNO. DARBY

THE FARMER.

BOSTON:—SATURDAY, NOV. 16, 1822.

ADVANTAGES OF TAKING AND PATRONIZING THE NEW ENGLAND FARMER.

“There is that withholdeth more than is meet but it tendeth to poverty.”—This was a wise saying of the wisest of men. We trust, however that our agricultural brethren of New England do not intend to give practical comments on this text by withholding patronage from a paper devoted almost entirely and exclusively to their interests. This would be to lose dollars in saving cents; and to economize about as unprofitably as he does who but half manures his land, or allows but half the requisite quantity of seed when he sows his wheat, rye, clover, &c.

It is very true that many farmers, whom we should be happy to enrol on the list of our subscribers, may have a very good knowledge of their business, derived principally from experience; and although Dr. Franklin declared experience was a dear schoolmaster, yet it must be allowed that the said experience gives pretty thorough going lessons, and brings them home to men's business and bosoms in such a manner that its admonitions are not easily forgotten. Dr. Franklin likewise said, in substance, that those persons who would learn nothing except what they were taught by experience, were fools.* Now this is a hard name, which we hope will never be correctly applied to any individual farmer, at least within the compass of the circulation of our newspaper. But, the cheapest way to gain knowledge is to take advantage of the experience of others; and he who refuses to be taught by the experience of others, if not a fool, is certainly not so wise as he might be. Now the New England Farmer is intended to be a record of the experience of husbandmen in every branch of agriculture and domestic economy. That there will be faults and

* We believe Dr. Franklin's adage was, “Experience is a dear school, but fools will learn in no other.”

inaccuracies in this record is to be expected as long as error is one of the attributes of humanity. But we believe that we shall be able to give in this work more valuable information relating to the most useful and important of the arts, as well as the most extensive and noble of the sciences, than can possibly be obtained at so cheap a rate from any other source of agricultural knowledge. In making this assertion we hope not to be accused of arrogance. The Editor claims no merit but that which arises from industry and good intentions. But if we faithfully avail ourselves of the sources of information within our reach, and make a good use of the local advantages which Boston affords for obtaining the publications of different societies and individuals both in Europe and the U. States, our paper cannot fail to prove an acquisition to any person who is engaged in agriculture or its kindred arts. Indeed the recipes, economical processes, &c. must make it a valuable *family book*, and it not exactly a "Cook's Oracle," it would be at least a good House-keeper's Companion, and in some instances it may aspire to the honor of being a "Young Farmer's Guide."

The New England Farmer, it should be recollected, is not an *advertising paper*, and as it is often necessary to give engravings, which are expensive, prompt payment, and a pretty large list of subscribers are indispensable requisites to its existence. It is moreover a *very cheap paper*. We give a subscriber, for two and an half dollars, more matter than he could obtain in almost any other recently printed book [the New England Farmer may be considered a book, printed in weekly numbers] for ten or twelve dollars.

We not only give a great quantity of matter, in proportion to the price of our paper, but the quality is exactly that which must prove of the greatest utility to a farmer and his family.—With regard to the mode in which it has hitherto been conducted it behoves us to say but little. If we should speak favorably of our own labors we should be guilty of boasting; and if we should lament our deficiencies we might possibly be accused of affecting a degree of humility which we do not feel. We have been so fortunate as to procure the approbation of the Officers of the Massachusetts Agricultural Society, which we consider as the best reward of our past exertions, and the highest stimulus to our future efforts. We have no doubt but that, according to the old adage, "practice makes perfect," we shall be able to improve as we advance in our editorial career, and hope that our future numbers may better deserve the favor of the public than those which have already been well received by competent judges.

We have in contemplation some arrangements relative to our paper, which we conceive may enhance its value. Among others we propose

to give articles from the most approved authors relating to the diseases of cattle, horses, swine, sheep, &c. We may thus enable our subscribers, no doubt, in many instances, to save valuable animals, when attacked by disease. This may be the more advisable on account of our country's containing very few Farriers, or Veterinary Surgeons by profession. Every farmer must, in many parts of New England, be his own cattle-doctor, and it is hoped no farmer will take amiss some directions relative to a science of such indisputable, and almost indispensable utility. We hope in the present volume to incorporate some complete treatise on this subject, and shall take the advice of some scientific friends, as well as exercise our own judgment in selecting for republication, some work which will be plain, practical, and have no tendency to mislead, or to sanction dangerous or erroneous practice.

Some of our friends have solicited from us, information relative to various topics, connected with agricultural improvement. Amongst others we are requested to give articles relating to the *best mode of laying down ploughed lands to grass—the best manner of reclaiming salt marshes, and converting them into tillage land—the latest improvements in the manner of cultivating hops, curing and preparing them for market—the best, least expensive, and most expeditious mode of clearing new land, covered with timber, and reducing it to its most profitable state of cultivation, &c. &c.*—We shall give our own ideas on some of these subjects, and should be happy in being favored with the opinions of our correspondents on these topics. Perhaps our friend from Stockport, Pa. will give us his ideas relating to some or all of them. We court his correspondence, and set the higher value on his communications because they appear to be derived principally from personal observation—are the result of much experience combined with good sense. They are likewise written in that plain and perspicuous style which always ought to be the vehicle of science, although literature may perhaps sometimes require something more ornate and artificial.

We shall conclude this article with a word or two by way of answer to an objection which we have heard stated against some of the matter in the New England Farmer, and indeed against any precise or definite rules relating to husbandry. It is said that every man must be governed *solely* by his own judgment and discretion, because circumstances so alter cases, soils are so different, &c. that no two farms can be profitably cultivated in the same manner. General rules, however, are useful, although exceptions often occur, and every cultivator is expected to exercise his own judgment, to determine whether a particular case comes within a rule, or forms an exception to that rule. Besides, a great part of the matter found in the New Eng-

land Farmer, is not only derived from high authority, but is applicable in every case designated in the articles. For instance, cattle in Great Britain or Pennsylvania have generally the same or similar diseases with those of New England—steeps to prevent smut in wheat may be the same—hams may be cured and eggs preserved by the same processes, making perhaps a little allowance for a difference in the temperature of climates. And if horses will eat mangel wurtzel or sweet apples in England or Pennsylvania, they will not refuse them in Massachusetts.

Plumbago, or Black Lead discovered.—Mr. Charles J. Dunbar, of Concord, Mass. has discovered a mine or quarry of Black Lead, in the town of Bristol, N. H. He has exhibited specimens of this substance to Professor Dana, of Dartmouth College, Professor Gorham, of Harvard University, and other gentlemen who are versed in the science of Mineralogy. They all speak favorably of the specimens. Professor Dana states that those which were exhibited to him "are of the *very first quality*, and will make excellent pencils, and other articles for which this substance is employed. The specimens are far superior to the black lead found in Sutton, or in any other part of the United States, so far as I know—and equal, in every respect, to the celebrated ore of this substance found in Burrowdale, in England."

Plumbago, Black Lead, or the Carburet of Iron, has various uses, besides that of making pencils. It is used to rub over wooden machinery to prevent friction—for making crucibles and portable furnaces—it protects iron from rust, and on that account is rubbed on stoves, and various ornamental cast iron works, such as the fronts of grates, &c.

Murder.—On Saturday morning early, the body of Anthony Rogan, a young man, about 27 years of age, was found dead in Court-st. by the city watch; and the verdict of the inquest on it was, that he came to his death by wounds inflicted by some person unknown. One of the stabs entirely separated the jugular artery, and must have occasioned immediate death. He was a native of Ireland, and in the employ of Dr. Johnson, veterinary surgeon. He left his lodgings, in Bangs' alley, about ten o'clock in the evening; and undoubtedly repaired to the Hill, where he had a quarrel about three weeks before; and where he told a person on Friday he intended to go that night, and expected to be attacked by persons he named.

Three hundred dollars—one hundred by the city, one hundred by Dr. Johnson, and the other hundred by Mr. Thomas Kennedy—are offered for the detection of the murderer.—*Centinel*.

We learn with regret, that the Cotton Mill, in Sutton, Mass. belonging to Mr. Asa Waters and improved by Messrs. Leland, Morse & Co. with the grist mill attached thereto, was entirely destroyed by fire, on the 5th inst. With the buildings a considerable quantity of yarn and cloth was also destroyed. The fire originated in the picking room; probably from the passing of some hard substance through the picker. Loss estimated at \$14,000.—*Providence Journal*.

The Cabinet Factory of Mr. Bradley of Alexandria, has been consumed by fire. Loss 13,000 dollars.

Benj. Bussey, Esq. and Amasa Stetson, Esq. have presented 50 dollars each, to the Penobscot Agricultural Society, to be expended in Premiums.

Harvard College.—The trustees of this institution have appointed Mr. NUTTALL curator of their Botanic Garden and lecturer on Botany in the University. This situation was vacated by the death of Professor Peck.

Mr. Nathan Flecher, of Bradford, made, in one day, working about 24 hours, twelve cider barrels.

SELECTED FOR THE NEW ENGLAND FARMER.

RURAL FELICITY.

O happy he! happiest of mortal men!
 Who far removed from slavery as from pride,
 Fears no man's power, nor cringing waits to catch
 The gracious nothing of a great man's nod:
 Where the lac'd beggar bustles for a bribe,
 The purchase of his honor; where deceit,
 And fraud, and circumvention, dress in smiles,
 Hold shameful commerce; and beneath the mask
 Of friendship and sincerity betray.
 Him nor the stately mansion's gilded pride,
 Rich with whatever the imitative arts,
 Painting or sculpture yield to charm the eye;
 Nor shining heaps of massy plate enwrought
 With curious, costly workmanship allure.
 Tempted nor with the pride nor pomp of power,
 Nor pageants of ambition, nor the mines
 Of grasping avarice, nor the poison'd sweets
 Of pamper'd luxury, he plants his foot
 With firmness on his old paternal fields,
 And stands unshaken. There sweet prospects rise
 Of meadows smiling in their flowery pride,
 Green hills and dales, and cottages embower'd,
 The scenes of innocence and calm delight.
 Where the wild melody of warbling birds,
 And cool refreshing groves, and murmuring springs,
 Invite to sacred thought, and lift the mind
 From low pursuits to meditate on God!

Turn then at length, O turn ye sons of wealth,
 And ye who seek through life's bewildering maze,
 To tread the paths of happiness, O turn!
 And trace her footsteps in the rural walk;
 In those fair scenes of wonder and delight,
 Where, to the human eye, Omnipotence
 Unfolds the map of nature, and displays
 The matchless beauty of created things.
 Turn to the arts, the useful pleasing arts
 Of cultivation; and those fields improve
 Your erring fathers have too long despis'd.
 Turn to that science, which in ancient time
 The mind of sages and of kings employ'd,
 Solicitous to learn the ways of God,
 And read his works in agriculture's school.

The following is a translation, by Dr. Darwin, of certain beautiful lines in Virgil's Georgics, on Ingrafting. They may form an excellent accompaniment to Mr. Preston's remarks on the same subject, which we have published on the first page of this day's paper.

Where cruder juices swell the leafy vein,
 Stint the young germ, the tender blossom stain;
 On each lopp'd shoot a foster scion bind,
 Pith press'd to pith, and rind applied to rind,
 So shall the trunk with loftier crest ascend,
 And wide in air robust arms extend,
 Nurse the new buds, admire the leaves unknown,
 And blushing bend with fruitage not its own.

From the Old Colony Memorial.

TO PLYMOTHEUS. October 31, 1822.

SIR—With many others I have read your communications upon the cock-chaffer with a great deal of interest. You are certainly very fortunate in your topic. Scarcely any one could be selected of more moment, or that ought to be more popular. The commendation which you have drawn from the Roxbury "Farmer" is no mean praise; and while his busy and potent pen is waking up the agricultural capacities of the people—I had almost said of his

country—their labors must not be shamefully left only to fatten this loathsome reptile, and heighten the evils of famine. In a cause like this, alarmed by the appalling view lately presented to us by many of our fields, it becomes every man to be a philosopher, which is only to observe correctly, and report faithfully.

To eat, or be eaten, is the order of things, as the world goes at present—and instead of going into a penurious calculation about the time inevitably devoted to self-defence in this state of perpetual annoyance—would it not be wiser to reflect, that we are all for *during the war* in this respect; that he is a good soldier, who cries and fights on, and receives a badge of honor, and is *commended in orders* at the close of the campaign.

Under these circumstances, 'tis impossible that motives to perseverance can be wanting, and patriotism, industry, taste and intelligence will work wonders any where.

In your last communication in the Memorial, I apprehend you were in an error, in stating that the cock-chaffer was then "just under the sod." But many of them had already descended, probably to avoid the winter. On the 19th inst. with several respectable farmers, and upon a spot where was *grass*, (for this grub does not eat every vegetable,) I made an excavation 18 inches deep, and shaving down the sides with a spade, I found *full grown* grubs in apparent good health, in all grades of descent throughout the whole distance. "Who forms the phalanx and who leads the way," may long be unknown; but, that they know when to set out and how far to go will hardly be called in question.

This fact is of importance, you will perceive, only in relation to the time for the ploughing, which you have well recommended, and may remove the doubts of the "Farmer" about the descent of this animal.

From my first attention to this subject in July, to the 26th inst. I have been constantly puzzled with finding *two* sizes, of what I consider the same worm in company. One size, which has uniformly appeared about the same, was not more than one eighth part of that of the full grown. This small sized grub was always at the root of the grass, as late as the 26th inst. though you supposed them to have gone down.

I conclude them both to be one species, because they have minutely the same external character. Through a pretty good glass they gave the same color, an equal number of horns—tentacula—incisions—spiracles and legs. *Four* of the latter on each side (instead of *three*.) as you have been the first to state. Indeed, so minute is the similitude, that two of the spiracles on two of the shoulders on each side, and at the same place are omitted.* But you say, there were "as many spots (spiracles) as incisions." I wish you would review this point. Correctness and not criticism is my object.

It seems to be admitted that the cock-chaffer has its *period*, of four or five years—if so, all

* In our last No. p. 113, plate I, is an engraving, copied from a figure of the cock-chaffer, given in Anderson's Recreations, vol. iii, p. 420. The resemblance is very accurate, excepting that in Doct. Anderson's figure, *three* spiracles or spots are omitted at the end of three of the shoulders, viz. the 8th, 11th and 13th, counting from the head of the insect, and including those in which the legs are inserted.—ED. N. E. F.

the grubs must be of one age, and nearly one size, and from a view of their nature, must pass their several metamorphoses exactly and forever in one and the same space and *period*. From this period, they could no more vary than the elephant from her two years gestation; and the progenitor, soon after depositing her eggs, is supposed to *perish*; though more agreeable to my theology, she only *dies*. Whence then these small grubs, too numerous to be anomalies? Are we then to believe an annual succession of cock-chaffer progenitors, and where it ends unknown; or resort to the doctrine of *equivocal generation*, a doctrine, which as yet, has more arguments than disciples.

I apprehend the public rightfully expect more from you upon this subject, and I intend to give you some account of several of each size of these grubs, which I have *fully committed* for trial in May.

COLONUS.

CURRANT WINE.

The samples of wine exhibited at Exeter were of white and red, by Mr. Samuel B. Stevens of Exeter; and of red, by Joseph Tilton Esq. of Exeter. The wine from the white currant, for body and flavor, was preferred; and the committee awarded to Mr. Stevens the premium. This wine had no distilled spirit mixed with it, and was made by the following receipts:

"To each gallon of clear juice was added two gallons of water, and to each gallon of the mixture was added three and a half pounds of white Havana sugar, and put immediately into a clean wine barrel; after it had done fermenting it was bunged tight."

The red wine of Mr. Stevens was made by the following receipt:

To each gallon of clear juice was added two gallons of water, and to each gallon of the mixture was added three and a half pounds of good brown sugar, and put into good barrels; after it had done fermenting, it was stopped tight. In February after it was made, one gallon of the best 4th proof Cogniac brandy was added to each barrel, and stirred up thoroughly."

Both these samples were of the vintage of 1821. Mr. Stevens has the last and present year, made from his garden five barrels of this wine. And those who need such inducement to commence the manufacture of it, should be informed that it is an article quick in the market for cash, at two dollars per gallon.

Haverhill Gazette.

An Agricultural Society has been organized in the County of Bristol. Samuel Crocker, Esq. President. An Address was delivered on the 6th inst. by Rev. Otis Thompson.

VEGETABLE PRODUCTIONS.

A Beet raised by Mr. E. N. Chaddock of Haverhill, Mass. weighing 21 pounds, and measuring 31 inches in circumference, was lately presented by him to the New England Museum. A beet which beat this was raised in the garden of Leonard Pratt, Esq. of Pembroke, which measures 32 inches in circumference, and weighed, when it was pulled, 22 pounds, and is mentioned as being in the Bookstore of Hill and Moore, Concord, N. H.—also in the same Bookstore, a radish 24 inches in circumference, raised in the county of Hillsborough.

NEW ENGLAND FARMER.

Published every Saturday, by THOMAS W. SHEPARD, Rogers' Building, Congress Street, Boston; at \$2.50 per ann. in advance, or \$3.00 at the close of the year.

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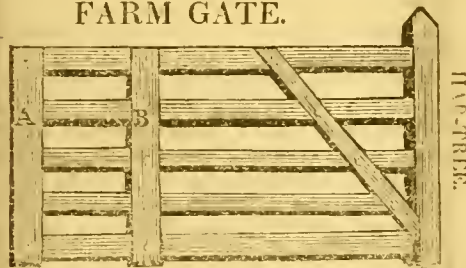
FOR THE NEW ENGLAND FARMER.

ON THE CONSTRUCTION OF GATES.

If farmers were to calculate the time employed in taking down and putting up bars, compared with that of opening and shutting gates, they would, on principles of economy, substitute the latter for the former; at least wherever they have frequent occasion to pass. And there are few farmers, who could not make their own gates in the leisure of winter. A great proportion of gates are not so well constructed as they might be. The most common fault is the fixing of the brace to run from the top of the hind piece of the gate, sloping towards the fore end. Such gates always sag, and their fore ends scrape the ground. Reverse the position of the brace, and then, if the gate be well made of seasoned stuff, it will never sag. The following sketch of such a gate, with the notes subjoined, will render farther description unnecessary.

A FARMER.

FARM GATE.



The Har-tree $3\frac{1}{2}$ inches thick, and $4\frac{1}{2}$ or 5 inches wide.

The brace $2\frac{1}{2}$ inches wide and 2 inches thick.

The upper bar 7 inches wide.

The three next bars, 6 inches wide.

The lower bar 7 inches wide.

The gate may be hung with hinges, or hooks and eyes, or with one hook and eye at top, and a gudgeon at the bottom of the har-tree, to turn in a hole, drilled into a hard stone, to be set close to the foot of the gate post. In the latter case the lower end of the har-tree should be rounded and receive a ring or narrow band to prevent its splitting.

The brace, besides the rivets, (one through each bar) should further be fastened to the bars by nails from the other side.

The brace, with its rivets and shoulders, renders it impossible for the upper bars to sag; and the two perpendicular pieces of board A. E. being riveted and nailed to the lower bars, effectually support them.

Full inch boards, even of white pine, will be strong enough for the bars; although hard wood or spruce would be preferable. If made of oak, inch boards would be amply sufficient.

The brace and har-tree should be of white oak, or hard pine.

ON THE USES OF THE COMMON NETTLE.

If we mistake not a patent has been granted in the United States for the exclusive right of making cloth of the nettle. Its uses, however, appear to have been well known in Europe for many years past. Dr. Anderson says (Recrea-

tions, vol. iii, p. 149 :) "Some poor women, fishermen's wives near Leith, in Scotland, gathered some nettles, steeped them in water like flax, dressed it, and spun it into coarse yarn, of which a kind of canvas was made. As their husbands were in the practice of dredging oysters, and sending them to Glasgow in canvas bags, some bags for this purpose were made of the nettle canvas, which was found to answer the purpose much better than that made from hemp, as it was much longer before it rotted. It should be steeped and dressed in the same way as flax, but it requires to lie longer in water before it be fit to be dressed. It is harder to the touch than cloth made of hemp or flax."

Dr. Anderson, however, doubted whether it could be made profitable to cultivate this plant for use. He observed that "unless it be upon a very rich soil, it is a dwarfish plant; it would therefore be more difficult to obtain it in quantities, than either flax or hemp." Dr. Anderson thought, likewise, that the steeping of it would require a great degree of accuracy.

The medical virtues of the nettle are thus described in an English magazine: "In the form of a strong decoction or infusion taken in the quantity of a pound a day it is a most valuable strengthener of general or partial relaxation. In that of a weak decoction or infusion, it proves an admirable deobstruent in impurities of the blood, and in obstructions of the vessels. And in that of expressed juices, taken by spoonfuls as the exigency of the case requires, it is the most powerful styptic for internal bleedings known. Externally applied as a fomentation or poultice, it amazingly discusses inflammation and resolves swellings. In the common sore throat, thus applied, and internally as a gargle, dependence may be safely put on this common plant."

It is said that the Russians obtain a green dye from the leaves, and a yellow dye from the roots of the nettle.

ACORNS FOOD FOR SWINE.

The hogs that are fed upon the acorns that they gather in the woods of Germany and Poland, are reckoned to yield the finest bacon of any in Europe; and it is to this that most people ascribe the superior excellence of Westphalia hams. So says Dr. Anderson, and farmers who live in the neighborhood of oak forests might easily make experiments which would decide whether acorns are equal to Indian corn, (which we doubt) or what proportionate value they bear to Indian corn. In Virginia sweet apples and peaches, we have been told, are used for feeding swine.

CLEARING OF LANDS.

But little need be said on this subject; as he who has to undertake the clearing new lands will acquire more knowledge, from practice, of the best methods of subduing our heavy forests, than from any essay on the subject. He will find that the essential point is to put his shoulder to the wheel, and persevere undauntedly; and in a few years he will find his exertions

amply compensated, by the pleasing scenes and profitable improvements which shall have been made around his dwelling.

When new Settlers first go into the woods, they have to spend much valuable time in hunting up their oxen and milch cows, which, for want of an enclosed pasture, have to run in the woods; and to remedy this, as soon as possible, we would propose the following:—About the first of June, take a suitable piece of ground, cut out the bushes, and all the small growth of timber which shall be under a certain size, say a foot over at the butt; pile all the brush round those trees which are left standing. In a dry time, in the month of August, set fire to them, and the fires will kill the trees left standing; then pile and burn what lies on the ground, which is soon done, and in due season harrow in a crop of wheat or rye, and in the following spring sow the ground over with herdgrass. The crop of wheat or rye, sown in this way, will be nearly as good as if the timber were all taken off; and the year following the ground will afford the requisite supply of pasture and hay. When the limbs of the standing trees begin to rot and fall off, cut the whole down and let them lie there; as the pasture will not be injured, but rather eventually benefitted, by the trees lying and rotting upon it. This method of killing trees by fire is, however, only recommended where they are such as cannot be killed by girdling; such as beech, maple, basswood, &c.

New Settlers, who will take this method of providing a supply of pasture and hay, will find their account in two ways: It is turning the grounds to immediate profit, with the least possible expense; and the surplus of hay and pasture will command an extra price; as those articles are always scarce, during the commencement of new settlements.—*Farmers' Assistant.*

Improvement in the Dasher of the Common Churn.

This dasher turns on the handle, by being fixed to it by a pivot. It consists merely of two cross pieces, suppose three inches square, put together, by being let into each other, in such a manner as to form four wings, which are cut beveling on each side, at an angle of forty-five degrees, so that they stand diagonally; the whole being very similar to the wings of the little wind-mills (so called) which are set up on poles, to be turned by the wind.

As this dasher goes down in the cream, it turns one way, on its pivot in the lower end of the handle, and as it comes up, it turns the other way; and this produces an agitation of the cream better calculated for producing the butter, than any method ever yet known. It is so efficacious in its operation, that the churning must be performed moderately, or the butter will come too soon, and be *swelled*, as it is technically called by some.

Mr. Fisher, the inventor of this dasher, obtained a premium in England for his discovery. The churning with this dasher is not attended with that splashing of the milk, so troublesome in the churn of the common dasher.—*ibid.*

From the New-York Spectator of Nov. 13.

NEW-YORK CATTLE SHOW AND FAIR.

"The task of making improvement on the earth, is much more delightful to an undebauched mind, than all the vain-glory which can be acquired from ravaging it by the most uninterrupted career of conquests."—WASHINGTON.

That the permanency of the prosperity of a nation, next to the liberality of its institutions, depends on its Agricultural and Commercial pursuits, is a position which we believe few will be disposed at this time of day to dispute. Altho' it may be said of Great Britain, that the glory she has acquired has been the fruit of her victories; yet if the cultivation of the soil, and her extensive manufactories had not yielded the means of prosecuting the wars in which she was engaged, she would have had no pre-eminence to boast of, when compared with other European States. It is from the soil, in fact, that every thing is derived which can be converted into a useful domestic purpose, or form the medium of our obtaining many of the necessities of life from other parts of the globe. Without agriculture, we should neither have bread to eat, nor clothes to put on. Without agriculture our commerce would sink into oblivion: and without agriculture, we would become as degenerate a race as the savages, who inhabited the woods and wilds, when this country was first visited by Europeans. A deep impression of the importance of this subject, gave birth to Agricultural Societies. These created funds, for the purpose of encouraging improvements, and bestowing rewards on merit, which it was not in the power of individuals to provide; and, in consequence of the judicious application of these funds, the most beneficial effects have resulted in all parts of the state: though we are not apprehensive that these institutions will be abandoned, we cannot shut our eyes to the apathy which has appeared in some counties, on a subject of such vital importance to the community. We trust, that nothing of the kind will ever be discovered amongst us; but, that those who really possess the means of contributing, will, instead of relaxing in the patriotic work, increase the support which they have been in use to afford; always keeping in mind, that "the task of making improvement on the earth, is much more delightful to an undebauched mind, than all the vain-glory which can be acquired from ravaging it by the most uninterrupted career of conquests."

We have thought the foregoing remarks not inappropriate by way of an introduction to a brief account of the New-York Cattle Show and Fair, for the exhibition and sale of live-stock, agricultural implements, and goods of domestic manufacture. The exhibition commenced, as our readers have already been informed, at Harlem, yesterday morning, and closed at one o'clock this day. The weather has been remarkably mild for the season, and notwithstanding the distance from town, the exhibition was better attended yesterday than we had anticipated. As we have given below the general Report of the Society, together with the pertinent address delivered this day at 12 o'clock, by Dr. MITCHELL, one of the Vice Presidents, we have but little room to detail the particulars that came under our own observation.

The exhibition of live stock, was on the whole highly creditable to this part of our state. We never witnessed a finer display of horses. Besides a great number of colts of blood, there

were upon the ground the famous horse Duroc, Old Hickory, and the beautiful Arabian, the Bagdad, imported last year by the Messrs. Barclays. The fat cattle were very fine, particularly one yoke from Westchester, and a lot brought upon the ground by Mr. Fink, of Orange county. Of cows there was but a poor display; and only two bulls that would be passable among judges of black cattle in England. Of working cattle, we saw nothing to compare with a yoke of two year old steers, brought from Poughkeepsie, and owned by Mr. John I. Copeman, of that place. There were some very fine sheep—native and merino; but no hogs deserving of notice.

The display of Goods of Domestic Manufacture, was extensive and exceedingly fine, both as it regards variety and quality. We cannot particularize the different articles, nor speak of their respective qualities. But there were broadcloths and cassimeres fit for any republican to wear; and if fit for republicans, they are certainly fit for any body else. The cotton goods from the Matteawan Manufactory, embracing shirtings, sheetings, and ginghams of every variety, presented a highly gratifying spectacle. We noticed also several rolls of flannels of a superior quality, and some diaper table linen manufactured by Mr. David Auchinvole, of Hudson, which, as we have before said, is quite good enough for freemen.

There were no articles, perhaps, which attracted more attention than the imitation Leghorn hats. We have examined many fine hats, of American and foreign manufacture; but we are free to say that there were three here presented to the public, which in every point of view, exceed any thing of the kind that has before fallen under our observation. The hat made by Miss Julia Harrison, of North East, Dutchess county, took the first premium; that of Miss Hedges, of Easthampton, (L. I.) the second; and that of Miss Babcock, of the same place, the third. There were several others, executed in a creditable manner, but only three were entitled to premiums.

Mr. Obadiah Parker, of Greenwich, exhibited some fine specimens of Upland and Sea Island Cotton, raised in his garden the late season; and there was another beautiful parcel, raised by Mr. M. Rogers, of Jericho, (L. I.) together with a pair of handsome cotton stockings, made from the same. But we will let the officers of the society speak for themselves.

The Society formed in procession at Deyo's Hotel, at 12 o'clock, and proceeded to the Church where an address was delivered by DR. SAMUEL L. MITCHELL.

(This address shall appear in our next.)

From the American Farmer.

RECEIPT FOR PICKLING BEEF.

October, 1822.

DEAR SIR,—You have published a number of excellent receipts for curing beef, but as none of them contain the alkaline ingredient, on which the high fame of my grandmother's pickle has safely rested for the last half century, and which is believed to make it superior to any other, I send you the whole recipe, as worthy of preservation in your valuable journal, and of general adoption. Several writers have asserted that boiling the pickle will harden the meat; I must, from experience, dissent from this opinion.—Boiling and thus purifying the salt and water,

will certainly make a pickle that will bear warm weather better than pickle which has not been boiled—and I am convinced that the hardening of beef has been improperly ascribed to this practice. Whenever the hardening takes place, it is a consequence flowing from some other cause, and not justly attributable to the boiling.

Your Obedient Servant,

SWEET PICKLE.

MY GRANDMOTHER'S PICKLE.

The Beef, as soon as the butcher has finished dressing it, should be hung in a cool place, and become thoroughly cool to the marrow—then cut it up, and cleanse every piece, of blood, &c. in pure cold water; then let the pieces intended for hung beef, the briskets, &c. be lightly rubbed with blown salt, and laid in a pickle tub, that has been nicely cleansed; on these lay the rest, the thickest pieces first, till all, to be pickled, are snugly packed in. If the weather will permit, the beef will be tenderer and nicer by being suffered to hang two or three days in quarters, or to remain 24 hours in the pickle tub, before the pickle is poured on it.

Take 12 or 14 gallons of pure water (if not pure, make it so, by boiling well after the salt has been put in, and taking off the scum as it rises) and stir in good blown salt till it produces a brine, that will bear an egg well. The day before the salt and water are put together, put on a pot of pure water, into which put clean wood ashes, and boil till they produce a good ley, that feels a little slippery between the thumb and finger; put this ley away till the next day to settle; it will then look like pure water. Measure one gallon of this ley, taken up clear, and pour it into the salt and water, after that has been made to the proper strength, or if you boil put in the ley directly after boiling. Also put in at the same time four ounces of saltpetre beaten fine; and one pound of brown sugar, or a pint of molasses.—Stir the ingredients well together and let them stand till next day; then carefully scum off every thing, that has risen, and pour this pickle on the packed beef. The beef ought to have on it a barrel heading, or circular piece of wood to fit the size of the pickle tub, so as just to move up and down, and on this piece of wood put a flat, heavy, clean stone to keep all down snug in pack, and the pickle ought to cover the beef completely, and remain well above the top piece. In pouring the pickle on, do it carefully and steady, and reject any sediment that may appear at the bottom of the vessel, in which you have made it. In butchering and handling the meat, and in every part of the process, attention should be paid to perfect neatness and cleanliness.

The above quantity of pickle is sufficient for 500 weight of beef. If more beef is to be pickled at once, the quantity of pickle must be increased accordingly, observing to keep up the same proportion of all the ingredients.

N. B. The boiling the salt and water in every instance is the safest, especially if the pickle be made before the end of November, or after the middle of February, and is not much trouble even though you may not have a boiling vessel that will hold more than half or a third of it at once.

Salem Alm-House.—One thousand bushels of Corn, besides an abundant supply of Potatoes

and other vegetables, have been raised at the Alms-House Farm the present season. The important improvements constantly making at this interesting establishment; the order and regularity with which every thing is conducted; and the neatness and comfort every where seen within its limits, reflect great honour on the present worthy Overseer, and entitle him to the lasting gratitude of the town.

Mr. Upton, whose mind is ever bent on some plan of usefulness, has suggested, (and we think the suggestion entitled to serious consideration) that a Dam might be built from the Alms-House wharf, across Collins' Cove, to the nearest point on the opposite side, which would afford suitable sites for Mills of various kinds, and be of great benefit to the town as well as individuals—it would also be a very convenient public way between Beverly, Bridge street, &c. and the lower parts of the town. The stone and gravel necessary for the construction of the Dam, are to be had in great abundance near the Alms-House, and by employing the men, teams and gondolas of the establishment, it might be executed at small expense.—*Essex Register.*

From the New York Statesman.

As you profess to devote a portion of your paper to the interest of agriculture, I take the liberty of communicating some facts relative to the turnip culture, which I have prosecuted this year to a greater extent than before.

My farm, on the Albany commons, is a sandy ham, and, so far as I can judge, very much resembles the celebrated turnip soil of Norfolk, in England. The idea, which is prevalent in many places, that the turnip requires a moist, rich, or very rich soil, is erroneous.—It is equally an error that they will not grow on old lands, provided they have a dry and sandy soil. In Norfolk there have been raised five crops on soils which were eight-ninths silex; and perhaps they do the best where the sand does not constitute less than 70 per cent of soil. I find I grow the best crop on the sides and tops of my most sandy hills; where in places more moist, and abounding in more vegetable matter, they are of diminished size, ill flavoured and stringy. Hence it has become a primary rule in my practice to sow this crop upon my lightest soils.

For table use, the later the turnip is grown the better. Those later sown, are more crisp, juicy, firm, and better flavoured, than those which are maturing during the heats of September. I therefore sow late; the common sorts from the 25th July to the 6th August, and the Swedes early in July.

As a crop for cattle food, I have yet but little experience, except with the ruta бага. Of the utility and profit of these I am fully satisfied.—They are raised as cheap as Indian corn. The average product is from 500 to 600 bushels. In a root cellar, or in piles of 100 bushels, buried up on the surface of the ground, they keep perfectly well, and are fed without being cut to neat cattle, with as little labor as any food.

I have raised turnips five years with uniform success, and always as a second crop.—You probably recollect the high reputation they obtained in the Albany market as a table vegetable. This year I have grown seven or eight acres, of different kinds, viz: the flat red top and green top, the Norfolk white, the Aberdeen yellow, the globe and ruta бага; and they all

prove excellent of their kind—the two first yielded at the rate of 760 bushels per acre.—The whole were raised on ground on which I had previously taken (the same year) clover, rye, wheat, flax and peas. Most of the ground had a light dressing of manure, which was ploughed under, and the seed sown broadcast, and harrowed in. They were thinned and weeded with the hoe once only.

I contemplate sending a few hundred bushels to your market in a day or two, when I beg you will do me the favor to call at the boat and view them. I think they are not surpassed for beauty and goodness by any which I ever saw.

Your obedient servant,

JESSE BUEL.

BREED OF HORSES.

The fine exhibitions of this animal at the late Cattle Show in this county, have led to much conversation, and excited a laudable spirit of emulation; and it is hoped a subject of so much importance to the community will continue to attract public attention, until the state is stocked with a new race of horses. Although the first premium was awarded to the celebrated *Duroc*, of Dutchess county, yet the beautiful Arabian *Bagdad*, imported and owned by Mr. Barclay, of this city, is said, by good judges, to be little if any inferior to his elder and successful rival; and the most sanguine hopes are entertained, that the stock from *Bagdad* will contribute much to the improvement of our breed of horses. As the two competitors are kept in different parts of the state, the interests of their respective owners can in no way interfere.—*ibid.*

From the Old Colony Memorial.

That the following may receive the notice which it deserves, we take the liberty of stating, that it is received from the Rev. Mr. Allen, of Pembroke, who has used it on the sides and roof of all of his buildings, except the house in which he resides. At a very little distance, the paint on the latter cannot be distinguished from this cheap, and ornamental mixture. Beside the neat appearance it gives, it may be recommended by the arguments of economy, as protecting the wood from the vicissitudes of weather, and of precaution, in guarding against fire. The latter should be an argument of great weight in this town. We can in no better way express our gratitude for the signal favour of Providence, in saving us from the ravages of this destructive element, than in guarding in every convenient and practicable way, against the mischief it may occasion.

This cement is designed as a paint for the roofs of houses. It answers all the purposes of common paint, and also protects the roof from fire. Those who are now erecting new houses, or are about to paint the roofs of old buildings, would do well to try it. The expense of painting a roof in this way would be much less than the common method.—The cement becomes very hard and glossy, and is said to be more durable than the best kind of paint. The following is a receipt for making it:—Take as much lime as usual in making a pail full of white-wash; let it be sifted in the pail nearly full of water; in this put two pounds and a half of brown sugar, and three pounds of fine salt—mix them well together, and the cement is composed.

A little lamp-black, yellow ochre, or other colouring commodity, may be intermixed, to change the colour of the cement, to please the fancy of those who use it.

From the Northampton Gazette.

Saxon Sheep.—Our enterprising townsmen, Isaac C. Bates, Esq. and Col. James Shepherd, have recently imported two Saxon bucks, which have arrived in town. They were purchased in Saxony for these gentlemen more than a year since, and selected by a good judge, as the excellence of the animals evinces. It is well known that Saxon wool commands a higher price in the English market than Spanish. It is the material of which the superline worst of England cloths are made. The growth of it, therefore, in this country, is important to the agricultural and manufacturing interests. These bucks are of the merino race of sheep, but improved. They are remarkable for the fineness, delicate softness, and singular uniformity of their fleeces, and are an acquisition to the country, for which the proprietors are entitled to a meed of thanks.

Sheep.—In the Report of the Committee on Sheep at the Worcester Cattle Show, it is stated that England and Wales possess 26 millions of Sheep, the annual produce of whose wool is 27 millions of dollars. England imports from Spain about one fifteenth of the whole quantity of wool which she manufactures. Three fourths of the wool wrought by the woollen manufactories of the United States is the product of foreign soil.—*ibid.*

Extraordinary Product.—Mr. Edwin Lathrop, of Hawley, raised the past season one hundred and eighty summer squashes from one seed.—*ibid.*

A new Method of heading Cabbage in the Winter.

Last fall, at the usual time of taking in Cabbages, I had a number well grown, but had no appearance of a head. I dug a trench on the southern declivity of a hill, about 18 inches wide, and 20 or 22 inches deep, and took 36 cabbages of the above description, and set them out in the bottom of the trench, in their natural position, with the roots well covered with sand: I then filled the trench with straw on each side of the cabbages, and laid straw over the tops of them, to prevent the sand from getting in; then placed a rail over the middle of the trench, to prevent any pressure on the cabbages, and then completed the work by throwing on more straw, and forming a ridge of sand over the whole, to keep out frost and water. In the latter part of March, I opened the trench and took out the cabbages, and found each one with a common sized head, white, solid, and well tasted.—*Inon.*

Easy method of breaking Glass in any required direction.—Dip a piece of worsted thread in spirits of turpentine, wrap it round the glass in the direction that you require it to be broken, and then set fire to the thread, or apply a red hot wire round the glass, and if does not immediately crack, throw cold water on it while the wire remains hot. By this means glass that is broken may often be fashioned, and rendered useful for a variety of purposes.—*Eng. pap.*

From the National *Ægis*.

MINERALOGICAL.....No. II.

To obtain a knowledge of the properties of those bodies which are found on the earth, or beneath its surface, which are destitute of an organic structure; to distinguish and bestow names upon them, and to give to them a suitable description and an orderly arrangement, are the objects of the science of Mineralogy. Hence results its connexion with Agriculture. The Farmer employs many substances, as manures, which belong to this comprehensive division of the family of nature. The soil which he tills, is composed of various constituents and filled with numerous fragments, which are properly to be considered as minerals. To become acquainted with the names which have been bestowed on these, without studying the qualities they possess, is a trifling, fitted only for the amusement of the indolent. To discover that the most precious of gems, is called the Diamond, and that one of the most valuable of manures, is denominated Marle, is making but a small advance in improvement. The practical man will consider how the value of the former may be enhanced and its beauty increased by its susceptibility of a polish, and will reflect on the economical application of the latter, to the renovation of lands exhausted by repeated crops, or its power of increasing the fertility of those which are still productive.

Whether that mass of mineral ingredients combined with various decomposed animal and vegetable matter, spread over the surface and called soil, serves only as a support for plants and a medium by which nourishment is transmitted to them, or whether it prepares and furnishes their food, in either view, its constitution is equally deserving of attention. It has been proved by experiment that particles held in solution pass unchanged into the roots of plants. Vegetables have been made to grow in solutions of salts, and examination has shown that they were tinged with the peculiar colors of the liquids in which they were immersed, and analysis detected that the salts themselves had been absorbed. This has been the case when the mixtures employed were of the most poisonous and deleterious nature. If plants then, have not discernment enough to select that food which is proper for their support and reject that which is destructive to their existence, it is the more necessary that the cultivator should remove from them the means of committing a kind of suicide. The noxious elements, which render the soils in which they abound unfit for crops, are few. They are generally such as may be neutralized, or converted into agents of fertility by appropriate applications and dressings.

It is not unusual to find the surface of standing waters in meadows, where the earth is apparently rich, mantled with a floating incrustation of various hues. Such an appearance is an indication of the presence of Iron combined with Sulphur, in the proportions which form the sulphate of that metal, well known by the more familiar name of Copperas. The same substance is detected by its color, or by its taste on higher lands. Wherever it exists it is an unfailing cause of sterility. By the application of Carbonate of Lime the action of this pernicious acid is not only neutralized, but the sulphuric acid, leaving its former combination, unites with the lime forming the sulphate of Lime or Gyp-

sum. In this manner qualities which are injurious to vegetation, are converted into others which are favorable to it. Similar examples, would all demonstrate the utility of that science which furnishes information on the constituents of soils, and provides us with the means of supplying their defects, correcting their noxious qualities, and adding to their productiveness.

A detail of the several processes, which are employed for the analysis of soils and discovering the minerals of which they are composed would exceed our assigned limits. Nor is such an explanation now necessary. It has been already given by Professor Davy, a man in whose foot-steps no successor may follow and find any thing remaining for improvement. The object of our remarks is merely to recommend this department to practical men. It is sufficient to say that by following the clear and perspicuous directions which he has laid down, results are arrived at with the greatest ease. No long previous acquaintance with Chemistry is necessary. A few simple principles comprehend all the secrets of this science in its connection with agriculture. None need be deterred from pursuing it by the apprehension of encountering insuperable difficulties. The little study which it will require, the small portion of time which it may demand, will be abundantly remunerated in the increase of knowledge, in the amelioration of the earth, and in the improvement of its harvests.

A FARMER.

From the National (Vermont) Standard.

WHEAT

Is one of the most valuable productions of our soil, and the only one on which we can generally safely calculate for exportation at a profit. In a very considerable portion of this state, so large a proportion of our lands have already been cleared, that very little of this grain will, in future, be raised upon newly cleared lands. Most of what shall be hereafter raised, must be raised on lands which have been sometime under cultivation. On such lands, this valuable grain is many times liable to injury from the blast. A certain remedy for this injury is very desirable. In order to stimulate our farmers to an inquiry into the cause which tend to produce this injury, and to exert themselves to search out a remedy, we present them with the following extract from Dr. Dwight's travels in New-England, recently published, which contains his theory on the subject of the blast in wheat. Dr. Dwight, in his various tours through the New-England States visited almost every town, and became intimately acquainted with the different modes of husbandry pursued in each. From his known talents, information and particular attention to those subjects which he considered of public interest, of which agriculture was one of the most prominent, any observations from his pen, on this subject, will, unquestionably, be perused with interest and attention, by all who duly estimate the importance of this crop, not only as it respects our farmers individually, but the interest of the State generally. If his theory is correct, our limestone ledges, will, with little labor, furnish us abundantly with one of the remedies which he prescribes, and become a much greater source of profit than they have heretofore been.

"The reason why the lands in New-England, which formerly yielded wheat surely and plen-

tifully, suffer at the present time such injuries from the blast, as in a great measure to discourage farmers from attempting to cultivate it, has been anxiously and extensively sought for, but not, it is believed, satisfactorily discovered.—From my own observation, and inquiries, I have been induced to attribute this evil to the agency of animal manure. This subject has been already mentioned in my observations on the county of Worcester: it shall now be resumed.

The manner in which *Wheat* is generally blasted in New-England, appears to me very evidently to be this. During the months of June and July, when the kernels of wheat in the different climates of New-England are in the milk, the vegetation is far more rapid than in most countries of Europe. Whenever the season at this period is both moist and hot, the rapidity becomes extreme. The vegetable juice, ascending then in too great quantities, and with a new celerity, wears with difficulty through the vessels of the stalk, regularly lessening towards the neck, and at that time so tender as to be easily ruptured, bursts them in various places; particularly at the neck: and flows out upon the surface of the stem. When it first exudes, it is very sweet to the taste; and has hence been commonly supposed to be the residue of a particular kind of dew, called by the farmers *honey dew*. Had any farmer recollected, what he cannot fail to find when he finds a honey dew, that it never appears on any thing beside living vegetable, and that, if it were a dew, it must be found equally on every other substance exposed to the atmosphere; he would certainly have determined, that it was merely the sweet juice of the vegetable itself. When this juice has pervaded the stalk, it soon becomes sour in the sunbeams; then so acid, as to corrode the stalk; and finally a rust, (as it is commonly called,) of a brown hue, and an offensive smell.

Animal manure, beyond any other accelerates vegetation. Wheat nurtured by this manure, grows with so much rapidity, and with so tender a stalk, that in the agricultural language of this country, it lodges not unfrequently, (i. e. it falls under the pressure of wind or rain) by its own weight; and never recovers its original position. This dangerous process is peculiarly advanced by the use of this manure; and the rapidity of vegetation otherwise too great, is by this substance rendered still greater. Hence all fields, when this manure is employed, are peculiarly exposed to blast. For a few years after lands are dressed with it the evil is so evident to the eye of common observation, as to be not unfrequently believed to exist by some farmers, and suspected by others. Were every season hot and wet, during this period, it would, I doubt not, have long since been generally realized and acknowledged. But as in some seasons these months are cool and dry; and those fields which have been dressed with this manure, then yield wheat successfully; and as in the most unfavorable seasons, lands dressed in a different manure, are also subjected to the blast; the question has hitherto failed of any answer, which has been generally satisfactory.

The reasons, which have induced me to adopt the opinion here alleged, are principally the following:

1. All the lands in this country, which were not too wet originally yielded wheat, easily,

urely, and so far as they were rich, abundantly. The inhabitants of North-Hampton for many years paid their public tax in wheat; and this wheat grew on the very lands, where for a long period it has been supposed to be so uncertain in object of culture, as to be scarcely worth the attempt, i. e. on *Intervales*.

2. New lands yield wheat perfectly well in most parts of this country at the present time. Some farmers believe, that there is such a change wrought by time, either in the climate or in the soil, independently of the proper effects of culture, that the blast is to be attributed to this change. Although this is a mere supposition, supported by no evidence, it has still had its weight. But, it is entirely refuted by the fact, mentioned under this head. Lands in the same circumstances yield wheat as abundantly at the present time, as at any former period. It deserves to be remembered, that all the *Intervales* along the Connecticut have furnished some crops of this grain for a considerable time after they first began to be cultivated.

3. Lands dressed with ashes, now furnish fine crops of wheat, which is rarely or never blasted. The only reason why the crops on new lands are so safe from the blast, is, that they are covered with vegetable mould; another name for vegetable manure; and so long as the efficacy of this manure lasts, are dressed with no other. It is the universal tendency of this mould to produce great crops; but it produces them by a gradual and moderate vegetation. Ashes, which are the same manure in another form, produce the same effect in exactly the same manner. Accordingly, although the crop of wheat, yielded by grounds dressed with ashes, is abundant; yet the stalk is firm, and strong; much stronger but much shorter than that produced by animal manure, and equally safe from lodging, and blasting, as that which grows on vegetable mould.

It ought to be observed, that in grounds, where the vegetable mould is very deep and abundant, wheat grows so rapidly as to be universally blasted. That this effect is solely derived from the redundancy of this manure is certain, because the same lands after the cultivation of a few years, yield wheat perfectly well.

4. In various instances, which have fallen within my knowledge, wheat, sown after clover, has been perfectly free from any injury by the blast; and that on *Intervales*, and other lands most liable to this injury. Here vegetable manure has been employed in another form; yet the same effect has been produced.

5. Lands, dressed with gypsum, have been equally favorable to wheat. This good effect has, however, been commonly produced through the medium of clover; the gypsum having been first employed for the production of this plant, and the wheat having been sown after the clover had been ploughed in.

6. Fields, manured with the white fish, have yielded wheat, universally, in great abundance, and with almost absolute certainty. This is indeed animal manure also; but very different from that, which I have introduced by this phrase above; viz. that of the stable and barnyard. The white fish is a species of herring, very fat and oily, and remarkably favorable to vegetation of every kind, which is the object either of agriculture, or horticulture. I have mentioned this fact, to show, that the evil com-

plained of, has its origin neither in the soil, nor in the climate; but in the particular mode of cultivation, which I have mentioned as its proper cause.

7. The lands in Pennsylvania, which yield plentiful crops of wheat, are regularly dressed with lime, or gypsum; and neither here nor in those old settlements in the State of New-York where this grain is least exposed to the blast, are cattle very numerous. Of course the kind of manure, which I suppose to be noxious to this plant, cannot abound in these countries. I am informed also, that, when this manure is used, it is generally mixed with other substances in a *compost*; and converted, either partly, or wholly, into mould, before it is employed as a dressing. It ought also to be observed, that a great part of the wheat lands in these countries are clay; and that the process of vegetation may be therefore materially different from that, which exists in New-England, where the soil is principally loam with a mixture of gravel. It is however said, that in Pennsylvania their crops fail, when they are unable to dress the lands in lime, or gypsum.* It is also said that the lands along the Mohawk River, which have heretofore yielded wheat with great certainty, as well as luxuriance, are gradually becoming less and less fitted for this kind of culture.

I have been informed that at Newbury they have lately adopted a new kind of husbandry, by means of which the crops of wheat are no less sure, and prosperous, than they were formerly. What this mode is, I have not, however, been able to learn.

In my own belief, animal manure produces this noxious effect long after it has ceased to enrich the soil. Although its influence has in this case become small; yet, so far as it extends, it is mischievous; and may, at the dangerous period above mentioned, accelerate a growth, at least sufficiently rapid otherwise, so as to produce the evil in question. Thus I consider grounds, long devoted to pasturage, as being injurious to the culture of wheat as really, though in a less degree, as those which are manured from the stable in form.

It ought, however, to be observed, that since the Hessian fly has rendered it impossible to cultivate what is here called *white bald wheat*, we have lost the species best fitted for the soil and climate of New England, as well as that which furnishes the best bread. All the substitutes for this wheat have yielded inferior crops; have been more exposed to the blast; have been more injured by the frost; have weighed less; and been of an inferior quality.

Should these observations be allowed to merit the attention of farmers in this country, it would certainly be worth an experiment to see how far the use of vegetable and mineral manures, would remedy this very serious evil.—Were lands, intended for the culture of wheat, to be employed for this purpose during a con-

* This remark, and indeed the whole tenor of the article has a tendency to confirm what we have observed in No. 12, pp. 91, 92, of the N. E. Farmer, relative to the necessity of lime, in some of its combinations, to insure the production of wheat. Fish makes a useful manure for wheat, because it contains, together with other food for plants, *phosphate of lime*, in greater quantities than most animal substances.

Ed. N. E. Farmer.

siderable period; were clover or other vegetable substances, or, where they can be obtained, mineral manures, to be alone employed as the means of enriching the soil, I am persuaded my countrymen would again see their crops of this grain not less sure, less abundant, nor less general, than they were in former times."

From the Farmers' Weekly Messenger.

SIGNS OF A GOOD FARMER.

His corn land is ploughed in the fall—His bull is from two to five years old and he works him. He seldom lets his work drive him. Has a cooking stove with plenty of pipe to it. The wood lots he possesses are fenced. His sled is housed in summer, and his cart, ploughs and wheelbarrow, winter and summer when not in use; has as many yoke of good oxen as he has horses—Does not feed his hogs with whole grain—Lights may be seen in his house often before break of day in winter—His hog-pen is boarded inside and out—Has plenty of weeds and mud in his yard in the fall—All his manure is carried out from his buildings and barn yard twice in the year, and chip dung once a year—His cattle are almost all tied up in the winter—He begins to find out that manure put on land in a green state is the most profitable—Raises three times as many turnips and potatoes for his stock as he does for his family—Has a good ladder raised against the roof of his house—Has more lamps in his house than candlesticks—Has a house on purpose to keep his ashes in and an iron or tin vessel to take them up—He has a large barn and a small house—seldom has more pigs than cows—adjoining his hog-pen he has a hole to put weeds and sods, and makes three loads of best manure from every old hog and two from every pig. A good farmer in this country begins to find out that steaming vegetables can be done at one third the expense of boiling, and that the Ruta Baga turnip is a thing worth thinking of—he fences before he ploughs and manures before he sows—He deals more for cash than on credit.

HABITS OF CATTLE WITH RESPECT TO FOOD.

It has been observed by some American writer upon Agriculture, that American Cattle were not so fond of turnips, ruta бага, and some other plants not generally cultivated for feeding stock in this country, as it should seem that English cattle were. This apparent squeamishness of our native breed of cattle may be accounted for by any one who will make a proper application of the following passage from Anderson's Essays on Agriculture, vol. ii, p. 6.

"Although it may be presumed, that in general, instinct points out to animals the plants that are hurtful to them or the reverse; yet experience sufficiently shows that this cannot be relied on as an invariable guide—among domestic animals at least; which, by having little freedom of choice from their infancy, have their taste in all probability depraved, as well as our own. I have seen oxen that on no account could be brought to eat turnips; and there are very few put upon them, who do not eat them at first with some degree of reluctance, if they have not been sometimes accustomed to taste them before; yet it is very well known, that few kinds of food are more nour-

ishing and palatable to cattle, after they have been accustomed to it."

The following from the *Farmer's Assistant*, will show that instinct is not an infallible guide for horses, as respects the food which is best adapted to their nourishment.

"Pumpkins are excellent for fattening horses. They, however, do not relish them at first; and therefore must be kept from feeding, till they are hungry, before the pumpkins are offered to them; and let a little salt be first sprinkled on this food, when they will soon grow fond of it and eat it readily, without salt."

If "hunger makes good sauce for horses," no doubt it would answer for cattle, and might make the latter relish turnips as well as the former pumpkins. But cattle or horses fed upon pumpkins, turnips, or any such succulent food, or upon green clover, &c. should be salted more liberally than those, which are confined to hay or other dry food.

From the American Farmer.

Improvement of Neat Cattle—Pedigrees of Imported Animals, &c. &c.

We have witnessed with peculiar pleasure, the persevering and praiseworthy zeal which Col. Jno. H. Powell, of Philadelphia, continues to manifest for improvement of our breeds of Neat Cattle; as well by judicious selections from our native stock, as by the importation of chosen animals from England.

In No. 6, of this Vol. page 45, we published a list of animals, which he had collected chiefly from the Eastern States, for the purpose of exhibiting them in Pennsylvania, and distributing them at cost, amongst the Farmers of his native and other states. And in No. 16, pages 122—3, our readers will have noticed an official account of the exhibition, made by the same gentleman, of some of those animals, and of other native and imported stock, before the Philadelphia Agricultural Society, for nearly all of which premiums were awarded to Col. Powell, that were instantly and generously relinquished by him, for the benefit of the Society.

In the same number, the effects of this gentleman's judicious and spirited efforts, to advance the interests of his neighbours, may be traced through the list of premiums obtained by them for superior young Neat Cattle, that partook of the blood of the improved breed, which he had brought to their notice and placed at their service.

We rejoice to learn that Col. Powell has ordered some more animals from England, and hope that he may realize his loftiest expectations from the enterprise. From Mr. Wetherill, the breeder of Mr. Williams' celebrated Bull "Denton," and from Mr. Champion, the breeder of Colonel Lloyds' beautiful and promising Bull "Champion," he may justly expect to receive some of the most improved cattle of Great Britain. And no where could such Stock be better placed than within the reach of Pennsylvania Farmers; who, like their judicious fellow citizens of Massachusetts, will gladly embrace every opportunity to improve the breeds of their Neat Cattle.

And that all may hereafter avail themselves of the offspring of such animals as prove to be the best of their kind, we have proposed to record the pedigrees of imported and celebrated

stock, which we will thankfully receive from owners, or others who possess such information, and carefully register it in our columns. We are indebted to Col. Powell for the following pedigrees of two very valuable imported animals, and two others of imported breeds.

PEDIGREES.

FLORA, (an imported thorough bred improved Durham Short Horn Cow) was by Sampson—dam was Betty—grandam Old Betty, who came from the neighbourhood of Darlington, Durham County, England—Sampson was by son of Ossian—Ossian was by Favorite—Sampson's dam was by Comet—Comet was by Favourite.

ROSE is also a thorough bred improved Durham Short Horn Cow, and was purchased near Darlington.

LOTHARIO, a bull of 7 months, was from Rose, by George—George was by Phenomenon—dam by Favorite—grandam by H. Allison's Gray—great grandam by T. Charge's Old Gray—Phenomenon was by Favorite, from Elvira, bred by Sir H. Vane Tempest—Elvira was by Old Phenomenon, from Princess, both bred by Robert Collings—Princess was by Old Favourite.

CORA, was by Mr. Williams' bull Denton, from Julia—Julia was by Denton, from Mr. Williams' imported cow Devon—Denton was by Old Denton—dam by Baronet—grandam by Cripple—great grand dam by Irishman—Old Denton was by Comet.

THE FARMER.

BOSTON:—SATURDAY, NOV. 23, 1822.

ON SAVING AND MAKING THE MOST OF MANURE.

(Continued from page 111.)

It has generally been taken for granted, by those who have considered themselves as adepts in the science of agriculture, that the great store-house of nature contained, in some corner of the apartment, a very valuable substance, called *food for plants*. This they supposed to be the essence of all manure, and the only thing needful, in order to raise, on any soil to which it might be applied, as great crops as could possibly find room for their tops and footstalks. They therefore set about exploring and experimenting, rummaging and ravaging the animal, vegetable and mineral kingdoms in search of this magical substance, this farmer's philosopher's stone, which would metamorphose a desert into a flower garden as it were by the wand of a necromancer. At length certain philosophers verily believed, and told the world their opinions, that they had found the identical *pabulum of vegetation*, as they called it, and that agriculturists had nothing to do but to manure their fields with the said pabulum in order to procure the best and most profitable of all possible products. But, unfortunately, it so happened that no two, or at least no half dozen of these learned and ingenious system-makers could agree upon the nature and constituent parts of this appropriate diet for vegetables; and of course the said vegetables were obliged to pick up a living as they could, while their philosophic caterers were preparing menses precisely adapted to their appetites and constitutions.

Duhamel and Tull were of opinion that the *earth* in which plants grew, furnished their principal food. That in order to enable their little mouths, (which were placed in their roots) to imbibe their nourishment, the soil must be ploughed and harrowed till you had

almost demonstrated the infinite divisibility of matter by actual experiment. If the food of vegetables was reduced to an impalpable powder, as much finer than snuff as snuff is finer than grape shot, they imagined it would be more easily swallowed and digested, than if it remained all kneaded together, or its particles were congregated in coarse lumps, which plants could neither carve into particles of a proper size for deglutition nor take in and decompose or digest without division.

Van Helmont and many other men, who have been famous in the annals of philosophy, were confident that *water* is the one thing needful for the growth of every species of vegetation, and that the soil, in which plants are fixed is no otherwise useful than as it serves to sustain them in an upright position and to convey water to their roots in such quantity as may be adequate to their wants. Very many able writers have adopted this theory, and it would seem that even at this day it is not without its advocates.*

* Lord Kaimes was of this belief which he fortified by the authority of Lord Bacon, who, he observes, "gave his opinion, that for nourishing vegetables, water was almost all in all; and that the earth serves but to keep the plant upright, and preserve it from too much heat, or too much cold."

Gentleman Farmer, p. 363.

More modern writers have also given some countenance to this theory, as may be learned from the following note from Parkes' Chemical Catechism, p. 453, 10th edition.

"That vegetables will grow in woollen cloth, moss, and in other insoluble media, besides soils, provided they be supplied with water, has been repeatedly shown since the days of Van Helmont and Boyle; but the experiments of a modern author, from their apparent correctness, seem more highly interesting and conclusive.

"Seeds of various plants were sown in pure river sand, in litharge, in flowers of sulphur, and even among metal, or common leaden shot; and in every instance nothing employed for their nourishment but *distilled water*. The plants thrived, and passed through all the usual gradations of growth to perfect maturity. The author then proceeded to gather the entire produce, the roots, stems, leaves, pods, seeds, &c. These were accurately weighed, dried, and again weighed, then submitted to distillation, incineration, lixiviation, and the other ordinary means used in a careful analysis.—Thus he obtained from these vegetables all the materials peculiar to each individual species, precisely as if it had been cultivated in a natural soil,—viz. the various earths, the alkalies, acids, metals, carbon, sulphur, phosphorus, nitrogen, &c. He concludes this very important paper nearly in these extraordinary words: "*Oxygen and hydrogen*, with the assistance of solar light, appear to be the only elementary substances employed in the constitution of the whole universe; and Nature, in her simple progress, works the most infinitely diversified effects by the slightest modifications in the means she employs." See "*Recherches sur la Force assimilatrice dans les Végétaux*," par M. Henri Braconnot, *Annales de Chimie*, Fev. et Mars, 1808.

"Professor Leslie has made many experiments on a variety of earths and stones by means of his improved hygrometers, the results of which are highly deserving the attention of all practical agriculturists. From these researches he has been induced to think it probable, that the fertility of soils depends chiefly on their disposition to imbibe moisture. See his *Short Account of Experiments and Instruments depending on the Relations of Air, Heat, and Moisture*, octavo, pages 94—102."

Notwithstanding plants can be made to grow in pure water, that circumstance does not prove that water is *exclusively* food for vegetables, any more than their growing in air (as some vegetables will) would prove that element to be their appropriate food. It might as well be said that the possibility of fattening an ox on potatoes is an incontrovertible argument that potatoes are the principal and almost the exclusive food of animals. Although plants may have power to change

Dr. A. Hunter, the author and compiler of several volumes of Geological Essays, many of which contain very useful observations, and facts, which are the heralds of much agricultural science, thought that he too had discovered the genuine food of plants. "I lay it down," he observed, as a fundamental maxim, that all plants receive their principal nourishment, from oily and mucilaginous particles, incorporated with water, by means of an alkaline salt, or absorbent earth. Till oil is made miscible, it is unable to enter the radical vessels of vegetables, and on that account Providence has bountifully supplied all natural soils with chalky or other absorbent particles." Experiment, however, the only infallible touchstone of theory, at length convinced Dr. Hunter that the cheapest oil was a very poor, but not very efficient article in a manure or compost heap; and oil, considered as a pabulum of vegetation, was held in no higher estimation than the substances which it had superseded.

The atmosphere had the honor of being next promoted to the office of purveyor of plants, and victualler of vegetation. The whole vegetable kingdom, from the cedar of Lebanon to the moss upon the wall, from the oak of the forest to the parasitical plant, which, according to Sir Joseph Banks, battens upon the stalk of wheat, and causes mildew, was fed on air like a can-lion; and manure derived all its utility from its attraction for the atmospherical pabulum, or panacea. That air does contain food for plants is evident from the circumstance that the house leek and various sorts of mosses will increase in weight without the aid of water or earth. But there are some other substances which appear to possess it in greater quantities, and better prepared for the purposes of vegetation. Thus a plant, which is partly withered in the air, may be revived by being sprinkled with water, and water lightly impregnated with muriate of soda, [common

oxygen and hydrogen into "the various earths, the alkalis, acids, metals, carbon, sulphur, phosphorus, nitrogen," &c. it would probably be more convenient for said vegetables to be fed with food, which contains such products as enter into their composition and make a part of their substance, ready manufactured, than to be under the necessity of manufacturing the whole from oxygen and hydrogen, which M. Braconnot appears to believe are the primitive particles, or raw materials from which the universe was constructed.

Some remarks by Mr. Cooper, Editor of the last American edition of Dr. Willch's Domestic Encyclopedia, would appear to strengthen the conclusion of M. Braconnot.

"In the case of the decomposition of animal substances, whether in the dry, or the moist way, no acid appears: we get azote, a foetid animal oil, swimming at the top of a volatile alkaline liquor, and sometimes concrete volatile alkali, or carbonate of ammonia comes over. The retort contains an animal charcoal, consisting of azote, carbon loosely combined, the base of the prussic acid, and if bones be used, phosphate of lime."

"In this case, the azote, the lime, and the phosphorus, seem to be new combinations, the result of animal organization, modifying chemical affinity. There are many districts of Pennsylvania, perhaps the best pasture land in it, that do not contain a particle of lime-stone. Such for instance as a great part of the county of Luzerne, and the beech country comprehended between the north-east branch of Susquehanna, the N. York state line and the Delaware. There is no finer grass country; but lime-stone is rare throughout the greatest part of this space. A calf bred up there, will have bones, that is phosphate of lime; his flesh will yield azote, either by distillation, or by the nitric acid: Where does he get it? The soil contains none; the grass on which he feeds contains none, but the ox is chiefly composed of azote and phosphate of lime!"

salt] and perhaps some other saline substances, will preserve vegetables from drooping longer than pure distilled water. At any rate, it is pretty evident that the atmosphere is not a very rich food for vegetables, because it robs a manure heap of its fertilizing qualities, although it communicates such qualities to a hungry loam. It is like a pint of water about half saturated with common salt, which by mixture will make a quart perfectly fresh water somewhat brackish; or if the quart of water was fully saturated with salt, somewhat more fresh. In other words, the atmosphere causes very rich land to become poorer, and very poor land to become richer, and can with no more propriety be said to constitute the food of plants, than earth can be said to constitute the food of mankind, because some savages in South America are said to support nature, in times of scarcity, from a sort of fat loam or mould which they dig up and swallow.

While philosophers were thus floundering on from one deep abyss of error to another still deeper, Chemistry came forward, and proffered its lamp to guide their feet. By analysing vegetables, chemists professed to ascertain, precisely, what kind of matter entered into their composition, or, (to express the same thing in more familiar terms) what sort of stuff they were made of. The simple substances which they found in plants are principally oxygen, [vital air] hydrogen, [inflammable air] and carbon [coaly matter.] Some others are found in smaller quantities, such as phosphorus, lime, silica, &c. &c. and seem to be rather accidental additions than substances which are indispensable to their existence.* These few simple elements, by being variously compounded and modified, produce gum or mucilage, starch, sugar, albumen, gluten, gum elastic, extract, tannin, indigo, narcotic principle, bitter principle, wax, resin, fixed oil, volatile oil, woody fibre acids, alkalis, &c. &c. When these premises were once established, and it was discovered that nearly all the substance of all plants was hydrogen, oxygen, and carbon, it followed, as Sir Humphrey Davy has expressed it, that "no one principle affords the pabulum of vegetable life; it is neither charcoal, [coaly matter] nor hydrogen, [inflammable air] nor azote, [the elastic substance which forms a great part of the atmosphere and which is incapable of supporting combustion] nor oxygen, [vital air] alone; but all of them together in various states, and various combinations."†

We believe that this theory of Sir Humphrey Davy is the most correct of any which has been advanced, and hope, in a future number, to deduce from his principles some results which may prove of practical utility. (TO BE CONTINUED.)

* It is thought, however, that lime and silica are indispensably requisite for the existence of some plants, in which they are always found by analysis.

† See Agricultural Chemistry, lecture 1, p. 18, Baltimore edition.

Col. Powell's Improvements in the Breeding of Cattle.

We have republished in this day's paper, p. 134, an article from the American Farmer, headed "Improvement of Neat Cattle," with much satisfaction; and are happy in an opportunity of expressing our sense of the merit which attaches to such exertions of wealth and talent to become useful as well as eminent. Colonel Powell is well known in Massachusetts as a liberal and enlightened Agriculturist, and his efforts to promote the interests of those who cultivate the soil will be as highly appreciated in New England as in Pennsylvania.

Mr. Fick, of New York, selected from an half acre of cabbages, 7 heads, which weighed 134 pounds.

American Talent highly appreciated in Europe.—Dr. Rush's Medical Enquiries; Dr. Wistar's Anatomy; Staman on Vaccination; Chapman's Therapeutics; Bigelow's Botany and Potter on Contagion, have been republished in Great Britain; and the last mentioned having gone through several London editions has been translated into French, and published at Paris, and into German, and published at Leipzig.

The town of Bristol (England) is to be lighted with gas. A capital of 50,000 pounds has been subscribed by a company for this purpose.

A serious misunderstanding exists between the Prince of Brazil and the Portuguese Cortes. The former has shewn a disposition to render his government independent of the mother country, and the latter have decreed that the delegated authority of the Prince shall immediately cease, and that he shall return to Portugal in the course of four months.

Havana is said to be greatly infested with robbers, who commit nocturnal depredations, keep the inhabitants in a state of constant alarm, and are sometimes too powerful for the control of the police.

A profitable commerce is now carried on between some of the ports in the Southern states and the West India Islands belonging to the British. The Raleigh Register says, "one small vessel carried out a cargo of timber which cost \$500, and returned with West India produce worth \$3,000."

A dreadful storm has occurred in the neighborhood of Calcutta, in which from 16 to 17,000 houses were destroyed, and more than 12,000 men, women and children. The loss in cattle, grain, &c. was also very great; and those who escaped the inundation are threatened with famine.

Poison.—Mr. Edmund Jukes, a surgeon of Westminster, Eng. has invented an apparatus by which the stomach may be emptied of poison, received by accident or design. After trying it on various animals with complete success, he experimented on himself—and swallowed ten drachms of laudanum, from which he was promptly relieved.

A foot race between a Yorkshire-man and a Lancashire-man was lately run at Doncaster. The purse was 20 guineas. The Yorkshire-man won the race by 100 yards. Time, 20 minutes and 35 seconds, for 4 miles.

Longevity.—There is now living in the state of Ohio a poor old woman, named Ann Bailey, who is supposed to be about one hundred and twenty years old. She was about 12 or 13 years old, when Queen Anne of England died, after whom she was named. She still retains so much health and strength as to sometimes attend market with a few fowls, &c. making a journey on foot of about seven miles to dispose of her articles, which she carries on her back.

Since the first of January, sixty-seven of the officers of the U. S. Navy have died.

At Schenectady, N. Y. Fair, a bull calf was exhibited, for which the owner refused to take \$250.

Miss Harrison, of America, N. Y. has made an imitation Leghorn for which she was offered \$150. She was ten weeks in completing the work.

M. Guy Duplantier, of Louisiana, has invented a machine for making bricks, which, it is said, will do as much work as 30 men. Also, another machine for piercing or morticing fence posts, in which he applies the power of horses, as it is said, to great advantage.

Rot in Cotton.—A Mississippi Cotton Planter, who was curious enough to watch the motions of a species of bug hovering round the cotton trees, has published, in the Port Gibson paper the result of his observations, by which it appears that the rot in cotton is caused by the sting of a bug, which, piercing the tender covering of the bowl, in its urine state, produces, in the course of three days, the decay of the bowl.

Gigantic Vegetable.—A beet which grew in the garden of Mr. Daniel Kramer, of Northampton, Pa. and which is now to be seen at his house, weighs fifteen pounds and a half, and measures at the thickest part thirty-four inches and a half, and somewhat lower down, twenty-seven inches. Who can beat this?

Philadelphia Union.

Ans. Massachusetts, N. Hampshire, and we believe every state in New England can beat the Pennsylvania beet all hollow. Mr. Leonard Pratt, of Pembroke, N. H. raised a beet weighing 22 pounds, and Mr. E. N. Chadwick, of Hanover, Mass. a beet which weighed 21 pounds. Therefore the Pennsylvania beet is by no means the beat of all beets.

FOR THE NEW ENGLAND FARMER.

THE SCOLDING WIFE.—A Sentimental Sonnet.

Hoarse thunder howls, blue lightning flashes,
Against the stars vex'd ocean dashes,
Earth, sky and sea, fire, water, air,
Like tipsy Irish, at a Fair,
Are all engag'd in one great clatter,
And every particle of matter
Seems warring wild with every other
To make one universal pother!
The great globe rent, the chasm displays
All Pluto's regions in a blaze,
Earthquakes have split the pole to shivers,
And all the solar system quivers!
But surely this vast elemental strife
Is naught contrasted with a scolding wife.

FOR THE NEW ENGLAND FARMER.

A special good reason for Self-Puffing.

Jack is a curious kind of elf,
Who, though he likes to puff himself,
Does it from principle, not pride;
He knows his worth, like insect small
Can never be discern'd at all,
Unless 'tis greatly magnified.

FOR THE NEW ENGLAND FARMER.

IMPROMPTU.

On seeing a purse-proud blockhead taking a solitary airing in his own coach.

'Things have come, now-a-days, to a pitiful pass,
Since it takes two fine horses to draw one vile ass!

Private happiness is the only sure and permanent basis of public prosperity.

Every day feelings and fire-side enjoyments decide the tenor of our lives, and he who values them most plays the best stake for happiness.

Madam Terein, a lady of erudition and discernment, gave to Marmontel, when he was a young man, a piece of advice with respect to the management of authorship, which ought to be a perpetual lesson to all writers by profession. "Secure yourself," said she, "a livelihood, independent of literary successes; and put into the lottery only the overplus of your time; for wo to him who depends solely on his pen!—nothing is more casual. The man who makes shoes is sure of his wages; but the man who writes a book is never sure of any thing."

It is not necessary in order to be an agreeable companion that you be either eloquent or witty, or possessed of any rare or superior talents; all that society demands of you is that you be complaisant without meanness, polite without flattery, steady without rudeness, and cheerful without affected gaiety.

Court the company of the learned, and the conversation of the aged; their discourse is often more useful than any book you can read.

It is a sure sign of want of wit, when one is always attempting to shew it.

The matrimonial blacksmith of Gretna Green, having bound an old lady, and a youth of unruffled chin in the silken bands of matrimony, observed to a friend, "I have just tied a withered stick and a green twig together with a cobweb."

From the Connecticut Mirror.

The Hon. Tristram Burges, of Providence, delivered an Address in August last, to the R. I. Society for the Encouragement of Domestic Industry, and a copy has been sent by Messrs. Miller & Hutchens, to the Hartford County Agricultural Society. The following is part of it:

"I fear we shall find, we are, taken in a mass, about such farmers as our forefathers were when they migrated to this country. They, we know, were such farmers as their fathers were when they left England. But all the capital improvements in agriculture, have been made, in that country, since the settlement of this.

If it were in the course of nature for the venerable pilgrims of Plymouth, again to land on the shores of that island, they would not know the fields of their native country. Not many years before they migrated, the London market was supplied with vegetables from Flanders, and the English climate and soil were deemed incapable of producing them. At this time, 14,000 acres are appropriated to gardening in the immediate neighborhood of that metropolis, and the vegetables and fruit raised on those lands are sold in that city for a sum little short of four millions of dollars per annum. The rent of land in the county of Norfolk, the least fertile, but the best farmed district of England, has increased within the memory of man, eight fold. The rent roll of Mr. Coke, the great Norfolk farmer, has, in that time, risen from five to 40,000*l.* per annum. This has been done, not by grinding his tenants, but by enriching them; by granting them leases of his lands for twenty years; and by giving them, in his own farming, a great example of the immense agricultural improvements which may be made, even in the sands of Norfolk, by industry, skill and capital.

Scotch farming has come into existence, long since Roger Williams paddled his canoe round Fox Point. In those days, the Thistle was the national emblem of Scotland. They fought under it in war, and foraged upon it in peace. But the unpoetical farmers of Caledonia have lost all delight in pursuing the thistle's beard, with the heroes of Ossian; or sleeping on the blooming hether with the buccaniers of Roderick Dhu. They have ploughed down all those things, which look so pretty, and smell so sweet in song, and given up those haunts of the muses to plain English barley and wheat; Dutch and Swedish turnips; the clover of Flanders, and the Shamrock of Ireland. In the progress of these improvements, these men have done, what Scotchmen think an essential service to that country; but what American farmers would think a curse to this—they have, by increasing a demand for labor, nearly doubled the price of it; but these industrious, intelligent Scotchmen, with their national prudence, have contrived, not only to pay this augmented price of labor, but to replace all their capital, and add to it, at least fourteen per cent. per annum. A farmer in the Lothians of Scotland, who cultivates 700 acres of land at a rent of 1*l.* 10*s.* sterling per acre, will, at the end of the year, have in his pocket, clear of all expenses, more than \$3,500. He has so much to add to his capital, and to enable him to extend his cultivation."

From the Plymouth (England) Telegraph.

We last week noticed an invention by a gentleman of Plymouth for conveying the electric

fluid by means of a copper conductor fixed in the masts, through the bottom of ships. Instead of being ascribed to Mr. T. Harris, Jr. as then stated, it should have been Mr. W. S. Harris.—The experiment took place on Monday last, on board the Caledonia, in the presence of the Navy Board, Sir A. Cochrane, Commissioner Shield, several Captains in the Navy, and the principal officers of the Dock-yard, in the following manner: The Louisa cutter having had a temporary mast and topmast fitted with a copper conductor, according to Mr. Harris's plan was moored astern of the Caledonia, and at the distance of eighty feet from the cutter a boat was stationed with a small brass howitzer. On the tiller-head of the Caledonia were placed the electrical machine and an electrical jar with the outer coating of which a line was connected, having a metallic wire woven in it this line being carried out of the starboard window of the wardroom, terminated in an insulated pointed wire in the immediate vicinity of the touch-hole of the howitzer: a similar line was passed from the larboard window, which communicated with the mast-head of the cutter and at the termination of the bolt through the keel a chain was attached, connected with another insulated pointed wire in the boat, placed in the vicinity of the touch-hole—the space between the insulated points being the only interval in a circuit of about 300 feet, from the positive to the negative side of the jar. Some gunpowder being placed in contact with the conductor in the cutter, and the priming in the interval of the insulated points, the jar was charged, and the line attached to the mast-head of the cutter being brought into contact with the positive or inside of the jar, a discharge of electric matter followed, which was passed by the line to the mast-head, and by the conductor through the powder to the chain in the water by which it was conveyed to the interrupted communication in the boat, where it passed in the form of a spark, and discharging the howitzer, returned to the negative or outside of the jar by the line leading into the starboard window, thereby demonstrating that a quantity of electric matter had been passed by the conductor through the powder (without igniting it) in contact with the mast of the cutter, sufficient to discharge the howitzer. Mr. Harris then detached the communication between the keel of the cutter and the positive wire in the boat, leaving that wire to communicate with the water only; but this interruption did not impede or divert the charge, as the discharge of the howitzer was effected with equal success as the first instance, the water forming the conductor from the cutter to the boat. In order to demonstrate that a trifling fracture or interruption in the conductor would not be important, it was cut through with a saw; but this produced no material injury to its conducting power.

These trials, carried on under the disadvantages of unfavorable weather, could not fail of convincing all present of its efficacy, and called forth the decided approbation of the Navy Board in particular, which was evinced by Sir T. B. Martin requesting Mr. Harris to superintend the equipment of the Minden and Java frigates, preparatory to its general introduction into the navy.

The science of love is the philosophy of the heart.

NEW ENGLAND FARMER.

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VOL. I.

BOSTON, SATURDAY, NOVEMBER 30, 1822.

No. 18.

DR. MITCHELL'S ADDRESS,

Delivered before the N. York Agricultural Society,
November 12, 1822.

Gentlemen of the Society, and Fellow Citizens,

Addresses, on occasions like this, have become so common, that it is almost to be regretted the call for them has not ceased. Yet it seems difficult to close such a scene as the present, without offering a few observations, particularly as they are prompted by the surrounding objects. Indeed, if remarks on the improvements already made, and rapidly making among us, have any pertinence or value, now is the proper time to offer them.

I was always friendly, as I still am, to the public patronage extended by law to societies for promoting the interests of agriculture and the useful arts. It manifests a liberal and noble spirit—it invites the citizens to exertions they would not otherwise make, and as it is not compulsory, they can decline acceptance if they disapprove the terms.

In acceding to the conditions, our association has shewn its good sense. A spirit of emulation has arisen which has produced excellent effects.

Persons have been brought together for laudable purposes, who would otherwise never have met. Productions and articles of various kinds have been offered for exhibition, which could, only in this way, have been viewed to so much advantage.

In all these displays it becomes us to acknowledge the goodness of the almighty Ruler of heaven and earth, who enables his creatures to advance in wisdom and skill, as well as in virtue and piety.

I congratulate you on the appearance of general advancement in the business of the society. The highways are very much mended; the strata of granite and gneiss have been broken up and converted into stone-fences. Bridges of the best construction connect the opposite shores of some rivers; and ferries of modern excellence offer remarkable facilities for crossing the waters of others. The ease, safety and speed of travelling are increased, and the condition of inclosures, buildings, forests and fields, evince the good order of farmers.

As indications of the prevailing spirit, I bring to your recollection the periodical works devoted to the cultivation of land, the due application of labor, the introduction of better machinery and implements, and the multiplication of valuable produce, which do honor to their respective editors in Albany, Baltimore and Boston.—It is a reasonable expectation that the proprietors of the soil in all the states, will extend an increasing patronage to such respectable and instructive publications.

It is pleasing to notice the Horticultural Society established in this county, and pursuing successfully its object. The exhibitions of the produce of gardens during the season, have enabled the directors to present interesting reports to their fellow citizens. It would seem that such laudable exertions must have a highly beneficial effect upon the market, both as to

the quality and quantity of the articles. In a survey like the present there is a peculiar delight in noticing the mechanical and scientific institution now organizing for instructing tradesmen and citizens in those principles of nature, which elucidate the processes of art. The well directed efforts of the managers merit applause, and cannot fail to be servicable to the great cause.

Our own premiums for butter have excited strong emulation among the proprietors of dairies. It is ascertained that it can be prepared in as neat and exquisite a style, as in any other place. And whenever the purchasers shall be willing to pay the additional expense, it may be decorated with prints, and refrigerated with ice, to suit the most refined taste.

Allied to this is milk, the daily supply of which to the inhabitants of a populous city, is more considerable than is generally supposed. Considering the extensive and perpetual use of this liquid, I wish it had been ascertained by fair experiment what course of keeping and feeding would be best for the cows which afford it.

I am peculiarly pleased with the bonnets now as well as heretofore offered at our show. It has been the good fortune of our ingenious females, among whom I mention Misses Harrison, Hedges, and Babcock, to discover that the *bent-grass*, (*agrostis*), and the *spear-grass*, (*poa*), are excellent materials for the manufacture. The Tuscan fabrics that we receive from the banks of the Arno, through Leghorn, are made of the straw from a dwarf variety of wheat, (*Triticum*). As far as I can judge, our native grasses may be worked and bleached into forms quite as beautiful as the wheat. I hope they will be found to possess more toughness and flexibility, wear better, and last longer. The raw material is cheap: the quantity inexhaustible. We must leave to the patience and skill of the ladies the determination of the question how far it may be practicable or expedient to establish manufactories among us. My feelings and wishes are in their favor. I trust they will grow and thrive.

From the excellence of the works in silk before us, we have full proof that our artists are proficient in dyeing and weaving. Whenever the state of society shall arrive in which the culture of this article shall be found profitable, we already know that both the tree and the animal are congenial to our climate. The white Mulberry grows perfectly in our soil, and the Bombyx prepares its cocoon as completely as in any part of the world. It is delightful to contemplate the resources of future industry, and to behold through the glass of prophecy, this family of insects, labouring under proper direction for the comfort and decoration of the human race. I observe with what satisfaction you beheld the vest patterns, the watch ribbands, the sewing-silk and other articles. The fabrics of cotton afford matter for the most agreeable reflection.

The plant whose seed is enwrapped and cradled as it were, by the precious down, has become naturalized to the more southern states. Though the *Gossypium* displays its yellow blossoms, and discloses its ripening capsules occa-

sionally in New-York, there is reason to believe that it cannot be relied upon as a crop, by reason of the early frosts, further north than the banks of the Roanoke. We receive it, however, in vast quantities, of various qualities, and upon the best terms, from Charleston, Savannah, Mobile, New-Orleans, and the other parts of the regions where it grows, since its introduction into Georgia by my friend the late Governor Milledge. The arts of spinning, colouring, weaving and putting up the goods, seem to be fully understood. A strong recommendation of our domestic articles of this class, is the better twist of the thread, and the more compact texture of the web; whereby it has a decided superiority over the starched goods of England, and the fleazy ones of India. An examination of the Sheetings, Shirts and Gingham before you, has verified this remark.

Wool, and its fabrics, have acquired, as they deserve, a high share of consideration. In a country subjected to the influence of cold for nine months, and of fashion for the whole twelve, the manufacture of clothing from this material, is a business of high moment. Accordingly it has attracted a corresponding degree of attention. Foreign wool, is admitted free of duty. In addition to the varieties of sheep, whose fleeces are of a longer and coarser staple, the merino breeds of Spain are now domesticated for furnishing the material of the finer fabrics.—Ware houses are established for buying and selling the tools and utensils of the trade, as well as the different kinds of the staple. Manufactures have grown up to respectable and encouraging height. And the stockings, the flannels, the coatings, the blankets, the carpets and broad-cloths, are among the things which bear witness of the skill, the industry, and the capital employed.

I cannot forbear to notice the machines invented to facilitate the dressing of the bark, rind, or cortical part of flax, by several persons at home and abroad. The price of linen cloth is so high, that the patriot and economist will agree in opinion that all practical efforts to reduce the extravagant price of this elegant article of dress, are worthy of special countenance and regard.

Hemp, I rejoice to assure you, may be raised to any requisite amount, as New-York and Kentucky have abundantly proved. If henceforward we derive it from Russia and Poland, it will be imported from the convenient exchange of commercial objects between friendly nations, rather than from any necessity we are under to procure from that source cordage or canvas for our shipping.

Our works in wood are admirable. Ships, carving, cabinet-ware, household furniture and utensils, squared and sawed lumber, staves, masts, yards, and the almost numberless fabrics of wood, are a mighty and important article of our domestic produce, proving the excellence and variety of the raw material, and the ability of the workmen to improve it. The barrels, casks, hogsheds, trays, ladles, spoons, boxes, and baskets, may be considered as samples of this interesting art, in certain branches of which

the religious and laborious society called *Shakers* has attained an honorable distinction. Cork may be here mentioned, whose operations are conducted with remarkable excellence, and to a great extent. Works in leather have been offered to you. It is not my intention to enter into a disquisition upon the methods pursued for tanning, or otherwise preparing the raw hide of an animal. Suffice it to observe, that the government does not require any duty on imported skins; that they are converted into materials for the best of fabrics, by our tanners and curriers; and that the cordwainers and stitchers transform them into shoes, boots, harnesses, caps, gloves, military accoutrements, and a great variety of other important things. The oil, bark, lime, and every thing, are derived from the exertions of our fellow citizens.

I group together the metallic arts. The foundries for casting in iron, are excellent in a high degree. These, and the establishments for constructing the apparatus for steam-boats, afford topics for a discourse of greater length than the present. Gold-beating, working in silver, the making of gilded and plated wares, operations in compounding and manufacturing zinc and copper into brass, the art of the tin-plate worker, the pewterer, the type-founder, the looking glass manufacturer, the wire-drawer, the pin-maker, and a multitude more of artisans, in addition to the black-smith and the white-smith, add to the importance of this enumeration. Among these, or allied to them, I mention with satisfaction the preparations of quicksilver, antimony, sulphur, lead, potash, soda, and other articles prepared for medicinal purposes. And I add with equal pleasure, the proficiency made in the cutler's art, whereby surgeon's instruments, razors, pen-knives, and other tools of exquisite edge and finish, are duly shaped and finished.

Among the improvements whose benefits this country has already begun to experience, are the canals, or the artificial rivers, a magnificent undertaking, that is intended to connect the Atlantic Ocean by the Hudson river, with the inland waters of North America, and their dependencies through Lake Champlain and Lake Erie, the latter a length of three hundred and sixty miles. The native water-proof cement has reached us from the interior strata, and is in successful use, equal to the Roman Cement, as imported from abroad. Salt, not inferior for whiteness, purity, and flavour to the best heretofore imported from foreign places, reaches us in baskets and boxes, from the inexhaustible sources south of Ontario. Flour, as excellent in all respects, as that we heretofore received from Richmond, is brought from Utica, and other productions of prime importance, will soon follow them. The political economist gazes with astonishment upon a work which associates the eastern and western sections of our union in closer ties, which pours abundance into this city, and reciprocates the advantage by distributing plenty through all the contiguous and almost immeasurable lands.

But I find myself obliged to turn to other objects. Our relations to the Central Board of Agriculture, and the Society for the Promotion of the Useful Arts, at the seat of our state government, continue to be interesting and important. Nor are we unknown to certain societies formed for similar purposes in governments beyond the seas.

The Gorgonists of Florence, in Italy, persist in their respectful and friendly desire, to correspond and commune with us, on husbandry, botany and rural affairs.

The National Academy of France, superintending the agronomical operations of that mighty kingdom, and the means for rendering the land more easily productive, has evinced to us the desire felt by the royal establishment, to learn what is doing here in the same department of occupation and research, and to partake of all the consequences of a liberal intercourse.

In like manner, the Imperial Society of Agriculture, for Austria, in sending us their statutes, catalogue of members, and volumes of transactions, have made an overture toward an acquaintance, which I am proud to announce and desirous of imitating.

The exhibition of domestic animals, the kine, sheep, swine, and horses, are highly honourable to the care and judgment of the breeders.

Permit me while I am addressing you, gentlemen to make a few suggestions for your consideration.

The axe and the firebrand have been employed with such destructive fury against the forest which the first settlers began to encounter, that fuel has grown dear and timber is become scarce. The culture of the Locust, the Chesnut, the Hickory, the Blackwalnut, the bass wood, and the oak, would well reward the planter, and secure wood for its various purposes to his estate and his successors.

There is such heavy damage and loss, by the voracity of vermin, that measures for destroying these noxious animals, or for preventing their ravages, ought to be speedily adopted. Insects are the chief of these mischievous agents. Almost every vegetable, whether wild or cultivated, has its attendant insects or troop of insects to prey upon it. Their history deserves to be better known. Their metamorphoses, through their fourfold state of being call for an exact series of observations. All the species, in their several forms of existence, ought to be collected into museums for instruction. We should then know them, as it becomes us to know our enemies, and be prepared to resist their attacks. To preserve their exact form and hues, good drawings should be made and correct histories annexed. Thus the grubs and caterpillars of every insect, would be understood, as well as their state of crasis and perfect or winged evolution. The farmer might derive help from the wrens, sparrows, and other birds that live upon insects, if he would receive these visitors with kindness, and take them under his protection.

Another subject is the felicity of cultivators in the neighbourhood of the ocean. Experiments of a recent date have proved, that sea salt, applied to land, in due proportion, is a good manure. Some reports which I have read, seem to establish the fact. Experiments repeatedly made by myself, upon the rain water of this very region in which we reside, have convinced me that the fluid of showers contains a portion of this fertilizing material. This appears universally the case, in a greater or less degree, at least under all circumstances in which I have chemically inquired into it. I am satisfied the saline ingredient rises by spontaneous evaporation; and we all possess proof, that it is elevated with the spray of the sea, the wind rolls them to the shore.

A maritime air is therefore charged, more or less, with this ingredient, descending in dews and rains, upon the vegetable growth below.—While we thus interpret this grand provision of nature, distributing gratuitously salt, in due quantity, with rain, to invigorate our crops, and at the same time to satiate the appetites of animals, let us understand that the operations of gypsum in the interior districts, is but an equivalent favor. There they have the sulphate of lime, and here we have the muriate of soda—with this difference, that the former requires an artificial application, while the latter is bestowed upon us without exertion or price.

With such possessions and prospects as are ours, there is no cause of envy or jealousy towards our brethren of any section of North America, or of the terraqueous globe. Our lot is cast here; and under the exercise of our faculties, our abode, during the term of our continuance, will furnish every thing that rational persons have a right to expect. And when our race shall be run, and our toil terminated in this sublunary dwelling, will commence the actual enjoyment of the treasure we have laid up in Heaven, "where neither moth nor rust doth corrupt, and where thieves do not break through nor steal."

From the London Medical and Physical Journal.

The greater facility with which zootic pathology can be reduced to experimental certainty, makes us anxious to express our gratitude to those who pursue the subject on a rational system: on this account we cannot withhold a tribute of thanks to M. Teissier, who has lately been engaged in researches on the period of gestation of the females of several domestic animals. The following is a summary of the results:—

"Out of 575 cows, 21 calved between the 240th and 270th day: mean term 259 1-2—544 between the 270th and 299th: mean term 282 —10 between the 299th and 321st: mean term 303. Thus, between the shortest and the longest gestation, there is a difference of 81 days, that is, more than one-fourth of the mean duration.

"Out of 277 mares, 23 foaled between the 322d and 330th day: mean term 326—227 between the 330th and 359th: mean term 344 1-2 —28 between the 361st and 419th: mean term 390. Between the shortest and the longest gestation there was an interval of 97 days; as before, more than one-fourth of the mean duration.

"Observations were made on two she-asses only: one foaled on the 380th, and the other on the 391st day,

"Out of 912 ewes, 140 lambed between the 146th and 150th day: mean term 143—676 between the 150th and 154th: mean term 152—96 between the 154th and 161st: mean term 157 1-2. Here the extreme interval is only 15 days, to a mean duration of 152; that is, only one-tenth.

"The mean term of seven female buffaloes was 308 days, and the extreme difference 27 days.

"The extreme gestations of 25 sows were 109 and 143 days.

"The extreme terms of gestation of 172 rabbits were 27 and 35 days; difference 8.

"In the duration of the incubation of domestic fowls, differences of from 5 to 16 days were observed. These cannot be ascribed to acci-

dental differences of temperature; for, according to the observations of M. Geoffroi de Sainte Hilaire, the same differences are found in the duration of the development of the chickens hatched by the Egyptians in ovens.

"From the whole of his observations M. Teissier infers, that the period of gestation is extremely variable in every species. Its prolongation does not seem to depend either upon the age, or more or less robust constitution of the female, or upon the diet, the breed, the season, or the bulk of the foetus, and still less upon the phases of the moon."

When we consider that in the inferior animals most organic actions are more regular than in man, we can now no longer be surprised at the uncertainty which sometimes attends the period of gestation in the most experienced matrons. May there not be the same variety in the growth of the foetus as in the child before puberty?

It is inconceivable what effect lime has on the productiveness of the earth. Philosophers have investigated its nature and properties, to find out the secret spell by which it works; and while some have attributed the effect to its power of decomposing putrescible matter, or to its affinity for carbonic acid, others have ascribed it to the change effected on the constitution of the soil. All, however, are agreed, that no land, after its first and natural richness has been exhausted by cropping, can continue fertile without a mixture of this fossil. Its use was the first thing which revived English agriculture after it had long languished in the most abjected state; and the first thing too, which raised Scotland to opulence and independence. Lime, as a manure, has found its way into France and Germany; and it is blended with the soil along the shores of the Baltic. In southern latitudes this mineral manure is more generally applied, either incorporated with clay in the shape of marl, or combined with the sulphuric acid in that of gypsum.

Lime is found of extremely different qualities; and in proportion as science comes to enlighten our practice, we will turn our attention to the character of the rock from which this fossil is taken. Pure limestone consists of nine parts of carbonic acid, and eleven of calcareous earth; and of course, in the process of burning—which is employed solely to expel the acid by the action of red heat, it will lose 9-20ths of its specific weight as drawn from the kiln. Shells of first quality will require more than their own weight of water to slake them; and every one bushel, when reduced to powder, will measure three. When the lime is intermixed with sand, flint, or clay, its loss in calcination will be less, the shells will yield a smaller proportion of powder, and what is still more curious, will require a less quantity of water. As there are great inequalities in the mixture of these foreign ingredients, so the product in powder and the quantity of water used in slaking, may be employed as certain measures of the value of the limestone.—The color, to a certain extent also, ascertains the purity; but this cannot be relied on infallibly, as there may be a portion of magnesia in combination, which, on account of its equal whiteness, cannot be discriminated by the eye. It is plain, that when our different rocks come to be wrought, these tests will be of

infinite advantage, and point out to the farmer and mason, those which will yield the most calcareous earth—the substance which both of them are in quest of, for the purposes of their respective arts.

To the farmer it is an object, to cart the lime, when fresh from the kiln. By exposure to the atmosphere, this earth attracts carbonic acid, and returns to its original weight, usually in the proportion of a twentieth part of each of the first five or six days; but if spread out to the air, recovers it much more rapidly. While it is light of carriage, it should be transported to the soil with which it is intended to be mixed, instantly slaked, and then scattered and harrowed on the surface. Delay here is of pernicious tendency if inert vegetable matter is to be acted on; as the causticity of the lime or its power of decomposing animal or vegetable matter, is most active in its simple state, before its affinity has been exerted on the carbonic acid of the atmosphere: but if the application is meant to improve the earthy texture of the soil, or to supply calcareous matter to the vegetable organization, there is no necessity for such haste, as this fossil, considered as a carbonate, is of infinite value to the farmer, and moreover is supposed by some inquirers to be peculiarly useful in this latter case. Directions* are even given against using it in the former particularly in soils rich in putrescent manure, because it lessens the solubility of those compound products that go directly to the nutriment of the plant.

*Davy's Agricultural Chemistry, page 320, 321.

Letters of Agricola.

From the Providence Journal.

The President of our University has, from experiments in Hydraulicks, discovered, an improvement in Flumes, which, at most mills, perhaps all, will increase the force of the water, and, at some will double or treble it. Where mills are now in operation, this improvement may produce a small expense. For this discovery, he has, we learn, obtained Letters Patent from the President of the United States.

Rice Glue.—An elegant cement may be made from rice flour, which is at present used for that purpose, in China and Japan. It is only necessary to mix the rice flour intimately with cold water, and gently simmer it over the fire; when it readily forms a delicate and durable cement, not only answering all the purposes of common paste, but admirably adapted for joining together paper, cards, &c. in forming the various beautiful and tasteful ornaments which afford so much employment and amusement to the ladies.—When made of the consistence of plastic clay, models, busts, basso relievos, &c. may be formed and the articles when dry are susceptible of a high polish and are very durable.

Portland Gazette.

Manufactures & Agricultural varieties.—Among the articles which obtained premiums at a late agricultural fair in Alleghany county, (Penn.) were *Japanned Waiters and Trays*, made at Pittsburgh; *Castor Oil*, from fifteen acres of beans raised in that county; and *Segars* from tobacco also raised in that county.

N. Y. Statesman.

Water.—A late English paper says, "Recent experiments, in many parts of England, have proved, that supplies of the best water may be obtained by properly boring the earth to a sufficient depth. The expense appears to be trifling, while the result is of the highest importance to all landed property. Fountains have been made in parishes where water has usually been sold by the gallon, which yield a constant supply, the year round, of a hogshead per hour."

This appears probable enough, when we call to mind how salt water is procured throughout the western states of the union.

Niles's Register.

On Wednesday last, a highly interesting experiment was made with a machine, constructed by Messrs. Fenton, Murray and Wood, of this place, under the direction of Mr. John Bleunkins-hop, the patentee, for the purpose of substituting the agency of steam for the use of horses in the conveyance of coals on the iron rail way, from the mines of J. C. Brandling, Esq. at Middletown, to Leeds. This machine is, in fact, a steam-engine of four horses' power, which, with the assistance of cranks turning a cog wheel, and iron cogs placed at one side of a rail way is capable of moving, when lightly loaded, at the speed of ten miles an hour.

At four o'clock in the afternoon, the machine ran from the Coal-staith to the top of Hunslet-moor, where six, and afterwards eight waggons of coals, each weighing 3 1-4 tons, were hooked to the back part.—With this immense weight, to which as it approached this town was super-added about fifty of the spectators mounted upon the waggons, it set off on its return to the coal-staith, and performed the journey, a distance of about a mile and a half, principally on a dead level, in twenty three minutes, without even the slightest accident. The experiment, which was witnessed by thousands of spectators, was crowned with complete success; and when it is considered that this invention is applicable to all rail-roads and that upon the works of Mr. Brandling alone, the use of fifty horses will be dispensed with, and the corn for the consumption of at least two hundred men saved, we cannot forbear to hail the invention as of vast public utility, and to rank the inventor amongst the benefactors of his country.—*Leeds Mercury.*

A young lady in London, who was handsome, and had a fortune of £12,000, while she was buying some small articles of a young shopkeeper, with whom she had some trifling acquaintance, took a piece of Flanders lace, and, out of mere gaiety and frolic, went hastily out without paying for it. The shopkeeper, who had a good head for speculation, followed and seized her, and charged her with the theft; and in a serious and peremptory manner, said to her, "Miss, you may take your choice, either to go with me before a magistrate and suffer the penalty of the law for stealing my lace, or go before a clergyman and marry me." After a short pause, (and who could blame her?), she chose the latter.—*London paper.*

A red cedar gate-post has lately been taken up at Philadelphia, fit for fresh use, which was put down 90 years ago. It is to be marked for further experiments.

From the National *Ægis*.

MINERALOGICAL.....No. III.

The connection between practical Agriculture and the theories of science is too extensive to be brought into view in the narrow limits of a single essay. To develop all the causes of sterility, to examine the qualities essential to a good soil, to correct and neutralize those which are injurious to plants, would require a detailed investigation of the laws of vegetable economy. Inquiries like these are interesting in the pursuit and valuable in their results. When they shall have been cultivated by those, who possess the taste and the patience so necessary to their successful prosecution, by those who can trace the various operations constantly going on in the great laboratory of Nature, those difficulties which now perplex and discourage will be overcome, and the art of scientific cultivation will be reduced to established and fixed rules, as simple as the axioms of Mathematics. The remarks which have been made, and the examples which have been adduced to show the advantages which would flow from the study of Mineralogy, so far as it relates to the knowledge of soils and the adaptation of plants to their varieties, have been brief and few, and the view which has been taken of the subject hasty and imperfect. It will not, however, have been useless if it should have directed the attention of the intelligent to an object well deserving examination.

It remains that we point out some of those mineral productions of our neighbourhood, which may become sources of profit, either as applicable to the amelioration of the earth, or from some adventitious circumstance which may render them valuable. This portion must from necessity be even more imperfect and defective than the former. Observation has not yet been employed in the search for those treasures which are hidden in the deep recesses of our hills, or in the caverns of the rocks. The hammer of the Mineralogist, whose peculiar province it is to discover the hiding places of the gem and the metal, has never yet been heard in our shady forests or silent valleys. The eye of curiosity has not yet explored those situations, where the ores were deposited when the mountains were piled upon their foundations. It cannot be said that this section of our country is rich in minerals, for there is at present too little known of those beneath its surface, to justify the assertion. Certain it is, that it possesses some which must form important articles of commerce, of manufacture, and increase the wealth and resources of its industrious and prosperous inhabitants. No regular examination has yet taken place, and for our knowledge of those which most readily present themselves to notice, we are indebted to accidental curiosity.

The art of mining has as yet received but little attention in this country. Young and growing as it is, labour is occupied in the clearing and improvement of the earth. It is not to be expected that were all are busied in strewing the seed into the furrow and gathering in the abundance of a generous harvest, that researches which are generally, though erroneously considered as uncertain and hazardous, should be undertaken, or if commenced that they should be prosecuted with the skill and zeal so essential to a successful issue. Popular superstition has guarded the beds of the jewels

with so many fanciful beings, the offspring of heated imagination, and peopled the dark habitation, of those metals whose utility as media of exchange, depends entirely upon their scarcity, with so many protecting spirits, that it requires no small degree of courage in adventuring to invade the dominions of those powers, who were supposed to be ready to inflict punishments on those who would steal from them the treasures they are commissioned to keep. It is amusing to find how many stratagems credulity and ignorance have put in practice, to deceive their vigilance. Some have dug deep at midnight, in places where a little experience must have convinced them, that nothing existed to reward their toil, thinking these subterraneous divinities might be then slumbering on their posts, and afterwards have laid the burden of their disappointment upon the omission of some mysterious ceremony, instead of fathering it upon their own folly. The art of farming is a distinct profession, and requires experience for its practice. Nor is an acquaintance with its rules valuable to the farmer, except as furnishing him with an uncommon method of rendering his farm productive. If portions of it are barren in consequence of mineral substances, instead of wasting labour in the attempt to render its soil fruitful, he may go beneath and gather crops more valuable than those of the corn or potatoe.

One of the sinews of agriculture, indeed the spring which sets all its various implements and machines in motion, is Silver. This article has been a native of Worcester County. In the year 1751, a vein of this metal in combination with iron and lead, was discovered in the shire town passing down into a hard rock of that description denominated Quartz. A shaft was sunk to a considerable depth, by a company formed for the purpose of working a mine on the spot.— Tradition does not inform us why it was abandoned; whether on account of the small quantity of ore obtained, the expense of excavation, or the want of sufficient skill in those employed. Examination of the specimens which are still found about the mouth of the opening, shows that about 2 parts of 100 are silver, the remainder Iron, Lead, Sulphur and Arsenic. How far it is fair to judge of the ore as it came from the mine, by these pieces, which were undoubtedly thrown aside at the time of working it, as not suitable for melting, it is not easy to decide. It is said that the same metal was found at other places not only in the same town but in other parts of the county.—Lead has been noticed in union with other minerals, but not in quantities sufficient to induce the belief that it could ever become important.

It is a remarkable fact that Iron, the mineral most useful to man, is most widely diffused over the earth. Forming as it does a necessary of his existence, employed as it is in every art, being the material for supplying the instruments for every manufacture, it is most providential that it should be thus distributed over the face of the globe. In this county it exists in almost every stone, ledge, and hill. It gives a bright red to our walls, it tinges our soils with a yellow shade, it communicates its taste to many of our springs, and with sulphur forms those beautiful cubes which from their color and lustre might be easily mistaken for gold. Furnaces have been erected in some parts, and the abun-

dance of the metal would justify the establishment of many more.

Arsenic is also found, not in its native and pure state, but in union with other metals, communicating to them a white color and a peculiar odour.

Lime is most important in its economical application to the common purposes of life. Every one knows its use in architecture and how much it contributes to the durability and convenience of buildings. All are apprised of the advantages resulting from its agency, in increasing the harvests, and forwarding the maturity of vegetables. This mineral in the state of the Carbonate, is found in the Northern part of Worcester county. When employed as a cement, it is not inferior to the Lime of any other section. As yet it has not been used as a manure long enough to test its properties.—Mixed, its success on some soils would be doubtful.

Clay is one of the most useful substrata of our meadows at a certain depth. Besides the ease with which it is converted into a material for constructing edifices, it is valuable for changing the texture of those fields which do not retain moisture. The Marl which is prized so highly in those situations where it can be obtained, is composed of Clay and Lime. Of the good qualities of this earth, and of the astonishing effects which it has produced, much has been said, by foreign writers. As the two ingredients which are its components, exist in their separate state, in abundance, it is not a very rash prediction, that they may be found united in such proportions, as to form a substance of all others, most necessary to the Farmer. The conclusion is so rational that they may be found thus mixed, from the fact that minerals readily change characters and intermix freely with each other, that it would well repay the time and attention necessary for the examination of our argillaceous earths.

The same remark is applicable to the Plaster of Paris or Sulphate of Lime. Sulphur or its acid, combined with Iron, glitters on almost every wall, or tinges the rocks with its yellow hue, and Lime is found in vast beds in this county. From these circumstances, a strong probability results, that there are situations, where the hand of Nature may have mingled together these ingredients, and that the Gypsum may be obtained nearer than Nova Scotia, and at a less expense than the price it would command, even when transported by water.

That these assumptions have no better foundation than conjecture, must be confessed. How far they are reasonable every one can decide for himself. Two minerals are seldom found in the same locality, entirely separate from each other. A transition carries one into the other, so that it is difficult to determine where one ends and the other begins. In these situations the qualities of both are blended together. The affinities which some substances have for others dispose them readily to unite. The subject deserves some attention, and should the opinions that have been advanced be established by experience, the advantage would exceed calculation.

The enumeration will be continued in our next number.

A FARMER.

FACTS AND OBSERVATIONS RELATING TO
AGRICULTURE & DOMESTIC ECONOMY.

FOR THE NEW ENGLAND FARMER.

FRUIT TREES.

"The seeds of a nursery should be planted in rows five or six feet apart, that carrots, potatoes, or bush beans may be planted between them. This will be an inducement to keep the nursery clean. Cherries, peaches, plums, and other stone fruit, should be planted while the bones are moist, or with the meat on them. In this way they come up with more certainty. It is a good practice to plant the seeds in beds, and to remove the young trees to the nursery. This will give an opportunity of early removing the tap root, and of increasing and directing the lateral roots. The dwarfs in a nursery are not worth cultivating, and ought to be removed; there are commonly enough thrifty trees without them.

"In taking up trees, care should be used not to injure the roots. The tap roots should be cut off, the broken roots pruned with a sharp knife, and the lateral roots should be carefully preserved, and should have sufficient room in the ground to spread. The trees when set out should have the same aspect, as when standing in the nursery. It is useful to place a small quantity of hay or straw around them, to prevent the sun from taking up too much of the moisture, and to keep the ground from becoming dry and hard. This should be removed before snow falls, lest it harbor mice. On dry land, not exposed to be moved by frost, transplanting is safest and best in autumn; otherwise in the spring. Trees are more thrifty, will bear sooner, and more plentifully, near fences, and will less incommode the cultivation of the field.

"In forming the head of the tree, all the limbs, which will be likely to rub across other limbs, should be early removed. By neglecting to do this in season, the tree may be injured by causing large wounds. By pruning when the circulation is most active, the wounds will soonest be healed. It is safest, when the wounds are large, to cover them with some kind of plaister to keep out the water and air, and prevent rotting. Mature trees, it is said, will produce more and fairer fruit by being pruned when in blossom.

When mice have injured the bark, it is useful to cover the wound with dirt, or some kind of plaister. When entirely girdled, the tree may be preserved by connecting the under and upper lips of the bark with a suitable number of scions. It is a good preservation against injuries by mice, to tread down the snow, when it first falls, for a foot or two about the tree.*"

Address by Rev. Abel Abbot, to the Essex Agricultural Society.

*For a recipe for preserving trees from mice, see No. 16, p. 123.

TO REMOVE FRUIT STAINS OR IRON MOULDS FROM LINEN OR COTTON CLOTHS AND OTHER SUBSTANCES.

Moisten the spot with water, and hold it in the fumes of a brimstone match. If a red rose be held in the fumes of a brimstone match, the color will soon begin to change, and at length the flower will become white.

Muriatic acid (spirit of sea salt) removes the stains of common ink, but it does not affect

printer's ink. It is therefore recommended for cleaning old books and prints. Half an ounce of red lead being added to three ounces of common muriatic acid renders it fit for this use. If indigo and oxid of manganese be added to common ink, it will prevent its being effaced by muriatic acid.

The citric acid (lemon juice) is proper for removing ink-stains from linen, but they are best removed soon after they occur. If they remain long in the cloth, the iron in the ink acquires that degree of oxidization, which renders it insoluble in acids. When ink stains have thus become what are called *iron moulds*, they may be removed by oxalic acid (a substance extracted from sorrel) or by first washing them with a sulphuret of potash (formed by triturating or pounding together equal parts of sulphur and pure potash, till the mixture becomes green) and then applying the citric acid as usual.

ANTIDOTE AGAINST CONTAGION.

An English chemical work of high authority, states that "accounts have been received from Spain, that in the midst of the dreadful contagion which reigned in that country, the inhabitants of those houses, where fumigations of chlorine gas* were used, had no attacks of the sickness, and enjoyed the best health. Care must be taken in the use of this gas, because it is so suffocating that it cannot be breathed without injury."

*Chlorine gas is produced by distilling a mixture of manganese, common salt, sulphuric acid and water. See Parkes's Chemical Essays, vol. iv, p. 68.

SUBSTITUTE FOR YEAST.

Carbonate of ammonia (or the kind of saline substance which is used in smelling bottles) is now much used by bakers in England, as a substitute for yeast.

RECIPE FOR PRESERVING LEMON JUICE OR LIME JUICE.

Strain the juice through fine muslin or filtering paper, and add as much loaf sugar as is necessary to make it sweet; then put it in a bottle which must be nearly filled, corked, waxed, tied over with wet bladder, and put into boiling water for an hour. Let it cool gradually, and put it by for use.—*Domestic Encyclopedia*.

RECIPES FOR PURIFYING PUTRID WATER.

If putrid water be agitated with a small quantity of magnesia it will lose its bad taste and smell in a few minutes. Alum may likewise be used for the purpose of purifying and sweetening water which has become foetid and unfit for use. Each gallon of water requires, according to its impurity, only from five to ten grains of calcined alum, and double or treble that proportion of charcoal, in order to render the most offensive water perfectly sweet and pellucid. The ingredients, however, ought to be preserved in close vessels, or their efficacy will be considerably diminished.

GLASS VESSELS, HOW PURIFIED.

All sorts of glass vessels and other utensils may be purified from long retained smells of every kind, in the easiest and most perfect manner, by well rinsing them out with charcoal powder, after the grosser impurities have been scoured off with sand and potash.

Crell's Journal, vol. 2, p. 170.

WELLS, HOW FREED FROM FIXED AIR.

Carbonic acid gas, or fixed air, so often occupies the bottom of wells, that workmen ought never to venture into such places, without previously letting down a lighted candle. If the candle burns, they may enter with safety; if not a quantity of quick lime should be let down in buckets, and gradually sprinkled with water. As the lime slacks it will gradually absorb carbonic acid gas, and the workmen may afterwards descend in safety.

THE BEST MODE OF ADMINISTERING OPIUM.

Citric acid, [lemon juice] has been found, within a few years to be useful in medicine. It is said that the largest dose of opium may be checked in its narcotic effects, if a proper quantity of citric acid be taken with it; and that with this addition, it induces cheerfulness, instead of stupefaction, succeeded by gentle and refreshing sleep.

Parkes's Chemical Catechism, p. 171, 10th ed.

When farmers employ a great deal of lime, it sometimes happens that their horses' feet are burnt by it, which is extremely troublesome, and sometimes proves even fatal to the poor animals;* a method of preventing or remedying that circumstance will therefore be of use.

The best method of preventing any inconvenience of this sort, is to spread the lime, when in its powdery state, upon the field as evenly as possible, and allow it to lie in that state sometime before you begin to plough it. If the lime has been in fine powder it will have become effete in a week or so; after which time it will be as little corrosive as any kind of common earth, so that the horses may work among it with perfect safety—but if it has been suffered to run into clods before it was spread, these, if not broken small, will be longer in absorbing their air, and, of consequence, will remain longer in an acrid state, so that in that case the ploughing may be deferred a week or so longer; nor will it then be so perfectly safe as the other.

But if it becomes necessary at any time to plough in the lime immediately after it is spread, take care to do it only when the soil is perfectly dry; and in leading your horses to the plough, take care to prevent them from going through any wet place, so as to wet their hoofs or ankles; for lime acts not at all upon any dry substance—but when it is in its acrid caustic state, it would corrode the hair and flesh in a moment, if it has access to water. As soon as the horses are unharnessed, keep their feet dry till you have got them carefully brushed, so as to wipe away all the dry powdery lime that may adhere to them; and if the least shower should fall, unyoke your horses immediately, and take them off the field.

But in case of any accident, by which a horse or man that is working among lime should be scalded by it, it is always advisable for every farmer, who has work of that kind going forward, to keep a tub of very sour milk or whey in some place, ready to wash the part affected with it, which will quickly destroy the poignancy of the lime, and prevent the mischief that would otherwise arise from it. The sourer the

*I have known several horses actually killed by this means, and others so disabled as never to be perfectly well afterwards.

milk or whey is, the better it will be for this purpose; it ought therefore to be long kept.* For want of this vinegar will produce the same effect, or very stale urine will be of use—but the milk or whey is the cheapest and best remedy, and ought always to be in readiness.

Anderson's Essays.

* Not too long lest it undergo the putrid fermentation which will destroy its acidity, and render it less fit to neutralize the lime, on which its usefulness depends.—*Ed. N. E. Farmer.*

PURIFICATION OF FISH OIL AND VEGETABLE OILS.

If any of these oils be boiled with tan, the tan will combine with the substance that occasions their color and smell, and the offensive matter being thus rendered insoluble will precipitate.

SALTING MEAT.

Muriatic acid [spirit of sea salt] is said by some authors to be a pleasant and wholesome condiment for food. Sir William Fordyce gives an account of a victualler who acquired a large fortune from possessing a secret that had enabled him to send out to the Indies provisions in a better state of preservation than any others of the trade. His whole secret was that of putting a small quantity of muriatic acid into each cask.—*Parkes's Chemical Catechism.*

A steel instrument may be distinguished from an iron one thus:—If a drop of nitric acid be let fall upon it, it will occasion a black spot if it be steel, but will not have this effect if it be wrought iron.

The following directions are recommended in cases of the burning of females, by their clothes having caught fire. If no person is present to assist her, she may relieve herself by throwing her clothes over her head, and laying down and rolling upon them. She must by no means run away, and flame always tending upwards, much of the mischief will be prevented if a person in that unfortunate situation will throw herself on the ground, and if possible roll about her a carpet, hearth rug, &c. If another person be present, then, without any regard to delicacy, such person should instantly pass the hand under all the clothes to the lowest garment, and raise the whole together, and close them over the head, by which, in an instant almost, the flame will be indubitably extinguished. This is the most expeditious and effectual method of preventing the dire effects of a terrible accident which is perpetually occurring.

[Or, roll the person in the carpet. This is one of the many accidents owing to the preposterous customs of open fire places, and muslin dresses in winter.—T. C.]

Domestic Encyclopedia.

From the American Farmer.

Hints and Experiments on the selection of Seeds, particularly of Fines.

Allen County, Kentucky, Aug. 30.

J. S. SKINNER, Esq.

Dear Sir—I will now give you a short account of an experiment I made with vine fruit. Having for many years observed, that some pumpkins, water melons, cucumbers, and cymbelin vines run ten, twelve, and even fifteen feet before any fruit appeared, and that others would

have fruit before they run half that distance, I concluded there was a natural reason for its being so. And in 1819 I took a cucumber and split it lengthwise and sub-divided it into three equal parts across the fruit, and kept the seeds carefully apart, those in the end near the vine, I marked But seeds, and those from the centre, Middle seeds, and those from the end on which the bloom grew, Top seeds, and I planted them separately, in new ground, well manured for the experiment in the spring of 1820; I carefully attended to three hills from seeds of each part of the fruit, divided as stated above, the hills being about twelve feet apart. All of the plants were alike flourishing; the vines from the But seeds ran from eight to ten feet before any fruit appeared, and these were small, with a neck; the vines from the Middle seeds ran from four to six feet before fruit appeared; the fruit was better and without a neck and four fold; the vines from the Top seeds produced fruit large, fine and in abundance, and the first fruit was on the third joint of the vine from the surface of the ground.

I have continued to save seeds from the top or bloom end, and now have cucumbers on the first and second joint, &c. I have been endeavouring to make the experiment on all kinds of vine fruit; corn and peas likewise, but the cut worms have in a great measure, disappointed me; notwithstanding this I have succeeded so far as to satisfy myself that real advantages may be gained by making such selections of seeds. I would have given the above account last year, but I wished to carry the experiment completely through a variety of kinds, &c. If it is new, or you consider it worthy attention, you are at liberty to give it an insertion in your paper.

I am yours with esteem,

SAMUEL GARRISON.

THE FARMER.

BOSTON:—SATURDAY, NOV. 30, 1822.

NEW SYSTEM OF SHOEING HORSES.

We have lately perused with much satisfaction a treatise, entitled "*New System of Shoeing Horses, abridged from the Works of Joseph Goodwin, Veterinary Surgeon to His Majesty George IV. and Member of the Royal College of Surgeons. Containing a Comparison between the English and French methods, and Observations on the Diseases of the Feet, connected with Shoeing. To which are added Observations on Bleeding and the Pulse; a concise View of the Anatomy of the Foot, Notes, Remarks, &c. By JOHN B. BROWN, M. D. M. M. S. S.*" Ornamented with cuts. Boston: Wells & Lilly; 12 mo. pp. 140.

We do not pretend to be greatly versed in the science which is the subject of this little Treatise. We are, however, strongly impressed with the importance of the topics which it discusses, and know that it was originally compiled and abridged by gentlemen who are eminently competent to the tasks they have undertaken.

In France and in England public Schools or Colleges have been founded, patronized by the respective governments, and endowed with ample funds for the purpose of teaching the useful art of Farriery, which in this country is left, we fear, almost exclusively in the hands of men, who are as ignorant of the most important principles of the art, which they pretend to practice, as the unfortunate animals they practice upon. With them every thing is "guess work," and they know

as little of the anatomy of a horse, or the symptoms, character, or correct mode of treating his diseases, as they know about the soil, climate, and productions of one of Herschell's planets. The Veterinary art, notwithstanding its acknowledged importance, seems to be considered as an art for which no apprenticeship and a science for which no study is requisite. Those who profess any knowledge of the diseases of domestic animals, for the most part, either pretend to know what they do not know, and are therefore a dangerous species of impostors, or their knowledge must have been *born with them*, (since they have had no chance to acquire it) Mr. Locke's notions relative to innate ideas the contrary notwithstanding. Indeed it cannot be expected that the professors of any art will make a great acquisitions in the science appropriate to the vocation if the art itself is held in disrepute, and professors are ranked, by virtue of their calling, in the lowest caste of the human species. People who are not respected are not apt to make themselves respectable, and as long as a *horse-doctor* and a *cow-doctor* are considered as terms of reproach, and an acquaintance with the diseases of domestic animals, as degrading the character of a biped, who aspires to be one of the "lords of creation," we must expect that ignorance, temerity and cruelty will predominate in one of the most important departments of Domestic and Rural Economy. Physicians, till within a few years, appeared to have thought that a knowledge of the diseases of horses and cattle was an attribute, which degraded its possessor; and as Pope says in substance,

"Not to know such trifles is a praise."

The two-legged "*creatures*" to whom the management, in sickness or health, of four-legged creature was exclusively committed, never appeared to be impressed with the truth of another assertion of the same poet,

"Act well your part, there all the honor lies;"

but, on the contrary, they viewed their part as a mere one, and of course it was no matter how *badly* it was acted.

In France and Great Britain, more correct ideas of this subject have been for some time prevalent. Great men in those countries are not ashamed to be useful and useful men in the Veterinary art, as well as other arts, are considered as great men. In France the knowledge of the diseases of domestic animals has long been taught in public schools, patronized and supported by government. In England, near the close of the last century, a Veterinary College was founded under the auspices of some of the most distinguished and public spirited characters. In this institution the whole art of medicine and surgery, so far as they relate to horses, &c. together with the true principles of shoeing and treating horses, while in a state of disease and of health, was, and we believe is still, publicly taught by a surgeon, who had made them his study, and who has the designation of Professor of the Veterinary Art. The Duke of Northumberland was President of this College, and among the Vice Presidents were the Earls of Grosvenor, Morton, Oxford and Rivers; Sir George Baker, Sir T. C. Bunbury, Sir William Fordyce, and the celebrated John Hunter, Esq. Pancras was fixed upon as the site of this College, on account of its vicinity to London. A handsome sum was allowed by Parliament, annually, for the support of this Institution. Mr. Coleman, who has been highly celebrated for his skill and veterinary science, was one of its Professors; and if we mistake not, the author of the book from which the subject of this notice is abridged, is now one of the Professors of this College. The advantages, therefore, of the author of the English edition of

is work were as great, probably, as any part of the world can afford; and that they have been faithfully improved may be presumed from the responsibility attached to his situation, and the talents which alone could have recommended to an office, that could neither be hereditary, purchased by money, nor held as a security. We have no doubt but Dr. Brown has faithfully abridged the original work, and by so doing is entitled to the gratitude of every person in the community who either owns or ever has occasion for the services of the valuable animal of which it treats. But, we said before, we do not pretend to be conversant with the art or science which form the subject of the work we are presuming to notice, and shall therefore conclude this article by appending thereto a Preface of Dr. Brown, which explains the objects of the publication, and, we think, cannot leave a doubt of its utility in the mind of any intelligent reader.

"The Editor of this abridgment, has no other object in its publication, than to meliorate the condition of that very useful animal, the Horse, by presenting to the American public Mr. Goodwin's New System of shoeing. Mr. G.'s original work upon this subject is expensive; and if republished in this country, probably would not be generally read by those who might most benefit by it. It has therefore been thought advisable to abridge it. In this abridgment the editor is careful to select every thing, necessary to give to the mechanic, a full and practical knowledge of Mr. Goodwin's principles and method of shoeing, and it is believed that it contains information, which will compensate any one who feels an interest in the subject, for a careful and attentive perusal.

"A circumstance very favorable to the adoption of this new system of Shoeing, is that there can be no danger of injury to the foot, from the change, if the shoe be properly put on, however long the horse may have been shod according to the method usually adopted in this country. The principal alteration necessary to be made in the form of the hoof is, at the toes, which are usually thick, and not very likely to be injured by one tolerably acquainted with the anatomy of the parts. A bad workman may bring disgrace upon any system of shoeing, or any other mechanical operation, however good it may be in itself, when properly executed.

"The editor of this abridgment does not take upon himself the responsibility of recommending Mr. Goodwin's system of shoeing horses, nor will he feel himself any degree implicated in its success. He presents it to the public, as it is, and the public will judge and determine whether it be an improvement upon our present method of shoeing, or not. If no attempt be made to improve, certainly no improvement can be expected. Whatever the opinion of the reader may be with regard to the particular method of shoeing recommended by the author, it is believed that he will find the work itself to contain much useful information, relative to the subject on which it treats; and it is hoped that its publication, here, will serve a useful purpose."

MAGNESIAN LIMESTONE.

A writer, who has published several essays in the *national Ægis*, at Worcester, which we have republished, remarks, (see page 140,) that lime "in the state of the Carbonate, is found in the Northern part of Worcester county. When employed as a cement it is not inferior to the lime of any other section. As yet it has not been used as a manure long enough to test its properties. From the quantity of Magnesia with which it is mixed, its success on some soils would be doubtful." We are glad to see the attention of that writer turned to the subject of Mineralogy, as connected with Agriculture, and cheerfully contribute our mite of information to promote the object of his essays.

Magnesian limestone has generally been supposed to be hurtful to vegetation, but we believe that when it is proved injurious, it has been in consequence of its being used to excess, or in its hot or caustic state. Magnesia when combined with carbonic acid gas,

seems not to be prejudicial to vegetation, and in soils rich in manure, it is speedily supplied with this principle from the decomposition of the manure. Under common circumstances the lime from Magnesian limestone is used in moderate quantities upon fertile soils in Leicestershire, Derbyshire, and Yorkshire, with good effect; and it may be applied in greater quantities to soils containing very large proportions of vegetable matter."

"Amongst some specimens of limestone which Lord Somerville put into my hands, two marked as peculiarly good proved to be magnesian limestones. And lime made from the Breendon limestone is used in Leicestershire, where it is called hot lime; and I have been informed by farmers in the neighborhood of the quarry that they employed it advantageously in small quantities, seldom more than 25 or 30 bushels to the acre. And that they find it may be used with good effect in larger quantities, upon rich land.

"A minute chemical consideration of this question will lead to its solution.

"Magnesia has a much weaker attraction for carbonic acid than lime, and will remain in the state of caustic, or calcined magnesia for many months, though exposed to the air. And as long as any caustic lime remains, the magnesia cannot be combined with carbonic acid, for lime instantly attracts carbonic acid from magnesia.

"When Magnesian limestone is burnt, the Magnesia is deprived of carbonic acid much sooner than the lime; and if there is not much vegetable or animal matter in the soil, to supply by its decomposition carbonic acid, the Magnesia will remain for a long time in the caustic state; and in this state acts as a poison to vegetables. One of the most fertile parts of Cornwall, the Lizard, is a district in which the soil contains mild Magnesian earth."—*Davy's Agricultural Chemistry.*

Quere. How would it answer to pulverize Magnesian limestone without burning, like Plaster of Paris and apply it in the proportion of from 20 to 30 bushels to an acre? In Scotland, pounded limestone is used for manure.

FARMER SUMMARY OF FOREIGN AND DOMESTIC EVENTS.

Success of the Greeks.—An article published in Paris, Oct. 12, states that shortly after a signal defeat of the Turks, they (the Turks) suddenly re-appeared at the foot of the Souli Mountains with 15,000 men. The situation of the Greeks was then very precarious, and it was resolved to destroy their wives and children to prevent their falling into the hands of the enemy, and then rush upon them, and sell their lives as dearly as possible. This resolution reached the ears of the Greek women, but they had influence to prevent its execution, and succeeded in restoring confidence amongst them. It was then resolved that the women, (who insisted upon it) should arm, and 800 were selected and armed. The men amounted to 3000. After invoking the Deity in their favour, they attacked the enemy, the women vying with the men in feats of personal valour, and drove them far from Souli. The result of the action has been 1350 prisoners and four pieces of cannon. The loss of the Greeks was 167 men, and 17 women.

The Great Congress of European Powers was expected to meet at Verona on the 18th of October.

A great earthquake has taken place at Aleppo, in Syria, which buried from 23 to 30,000 of the inhabitants and destroyed more than 20,000 houses.

A war exists between the Turks and the Persians, and the latter have lately gained considerable advantages over the former. Selim Pacha, with 15,000 men, has deserted from the Turks to the Persians.

An instrument for ascertaining the longitude has been invented by a Mr. Harley, in Scotland, which it is said by competent judges will completely answer the purpose on land or at sea in calm weather. The reward for the discovery of a complete instrument for ascertaining the longitude is 20,000 pounds.

A London paper states that Mr. Canning's principles are more liberal than those of the late Marquis of Londonderry; and that there is reason to believe him to be so well inclined to the Greek cause that he will undertake something in its favour.

The story lately republished from the London Globe respecting a great secret discovered in the art of tanning, for which the inventor had received a large sum of money, turns out to be fabulous.

Dodart, in a communication to the Royal Academy of Sciences at Paris, computed that an elm, every year, at a medium, produces 330,000 seeds; and therefore supposing it to live 110 years, 23 millions of seeds during its whole age. Fern is far more fertile in seeds. Hartstongue produces in a year a million of seeds. These seeds must have a use beyond continuing their species.

Since the discovery of the New-World, our English gardens have produced 2345 varieties of trees and plants from America, and upwards of 1700 from the Cape of Good Hope, in addition to many thousands which have been bro't from China, the East Indies, New-Holland, various parts of Africa, Asia, and Europe; until the list of plants now cultivated in this country exceeds 120,000 varieties.—*London paper.*

The Annual Meeting of the Plymouth Agricultural Society was held at Plymouth, on the 20th of November, inst. Daniel Howard, Esq. was chosen President, and Rev. Morril Allen, and Abiel Washburn, Esq. Vice Presidents. The premiums awarded were to Samuel A. Turner of Scituate, for compost manure \$15—Col. B. Murdock of Wareham, for the best crop of hay \$10—William Jackson, Esq. of Plymouth, for the best crop of wheat \$10—Leonard Hill of Bridgewater, for the best crop of oats \$8, and for the best crop of potatoes \$7—Solomon Alden of Bridgewater, best crop of corn \$10—Alpheus Forbes of Bridgewater, 2d premium for compost manure \$10—Jacob Thompson of Middleborough, for the best six lambs \$5.

In Virginia a two year old heifer has a calf six weeks old which weighs 185 lbs.

Cotton, of a quality in no way inferior to that which is brought from the South has been raised this year at Oyster bay, L. I.

The Baltimore Morning Chronicle of November 16th, says "it would not be much too early to hear the sleigh bells enlivening our streets, and yet so extraordinary is the season, that we yesterday saw ripe Cherries that were plucked from a tree in this city."

Fuller's Earth.—The Mobile Alabama Register mentions that Fuller's earth had been discovered in that vicinity of a superior quality, and such as will answer every purpose to which that substance is usually applied.

A quarry of marble, of a most beautiful and delicate grain, and said to be equal to the Italian has lately been discovered in Lancaster County, Penn.

A meeting was held at New-York, on the 15th inst. to form a Woollen Manufacturers' Society. This society proposes to give premiums for the best specimens, and to establish regular Fairs in the city, for the exhibition and sale of woollen fabrics.

A Patent Bedstead is advertised in New-York, which may be taken down or set up in one minute, without the use of tools, and does not contain the least harbor for bugs or dirt.

The Court House in Northampton was destroyed by fire on the 20th inst.

Spontaneous Combustion.—Within a month past there have been three instances of spontaneous combustion in large masses of coal in our Navy Yards—at this place, at New-York, and Portsmouth, New-Hampshire, by which each has been in great danger of being destroyed. This coal was obtained from one of the mines near Richmond; was found to contain an unusual quantity of sulphur; lay exposed to the air and rain; and became ignited near the centre of the heaps. It would be well for persons having large quantities of the coal on hand, to examine it frequently, and it would be a subject, worthy the attention of the curious and philosopher, to explain the cause of this ignition.—*Nat. Int.*

A plan is projected to unite the waters of Lake Ontario, with Lake Champlain, by a Canal, across the country from Ogdensburg to Plattsburg.

A new Map of Vermont, from actual survey, by James Whitelaw, Esq. is published with high recommendations.

FOR THE NEW ENGLAND FARMER.

We hope the following sketch from an English poem of the miseries endured by the noble animal whose sufferings are so well described, may a tendency to direct the attention of those who avail themselves of his services to his wants, and induce them to remember that "the merciful man is merciful to his beast."

Short-sighted Dobbin!—thou canst only see
The trivial hardships that encompass thee:
Thy chains were freedom, and thy toils repose,
Could the poor post-horse tell thee all his woes;
Shew thee his bleeding shoulders, and unfold
The dreadful anguish he endures for gold:
Hid'd at each call of business, lust, or rage,
That prompt the traveller on from stage to stage.
Still on his strength depends their boasted speed;
For them his limbs grow weak, his bare ribs bleed;
And though he groaning quickens at command,
Their extra shilling in the rider's hand
Becomes his bitter scourge;—'tis he must feel
The double efforts of the lash and steel;
Till when, up hill, the destin'd inn he gains,
And trembling under complicated pains,
Prone from his nostrils, darting on the ground,
His breath emitted floats in clouds around:
Drops chase each other down his chest and sides,
And spatter'd mud his native colour hides:
'Through his swollen veins the boiling torrent flows,
And every nerve a separate torture knows.
His harness loos'd, he welcomes eager-eyed
The pail's full draught that quivers by his side;
And joys to see the well-known stable door,
As the starv'd mariner the friendly shore.

Ah, well for him if here his sufferings cease'd,
And ample hours of rest his pains appeas'd!
But rous'd again, and sternly bade to rise,
And shake refreshing slumber from his eyes,
Ere his exhausted spirits can return,
Or through his frame reviving ardour burn,
Come forth he must, though limping, maim'd and sore;
He bears the whip; the chaise is at the door.—
The collar tightens, and again he feels
His half-heal'd wounds inflam'd; again the wheels
With tiresome sameness in his ears resound,
O'er blinding dust, or miles of stony ground.
Thus nightly robb'd, and injur'd day by day,
His piece-meal murd'ers wear his life away.

FOR THE NEW ENGLAND FARMER.

The person who tells a falsehood, in order to conceal a weak or wicked action, leans upon a broken reed which not only does not sustain him, but threatens every moment to break and pierce his hand.

Innocence and mystery never inhabit long together; and the first step towards vice is to make a secret of actions which are neither vicious nor unbecoming.

A man does well to take advice, but if he is always governed by his advisers he loses his own free agency. Advice is useful to enlighten the understanding, but ought not to direct the will against the dictates of the judgment.

We can forgive those who hate us, and even those who treat us with contempt may be forgiven, but can scarcely be loved. Affection can never blossom, if its bud has been blighted by scorn; or in other words we cannot love those, who make it evident that they despise, or think meanly of us.

Attention to the wants and wishes of those around us, even in matters of small importance, but frequent occurrence, gives the greatest charm to social intercourse.

From the Essex Register.

Mr. Palfray—As it may be interesting to some of your readers, to learn the results of the experiments of some of the most enterprising Agriculturists in the County, I have made an abstract of the Report of the Committee to examine the claims for premiums "on Indian Corn and other crops," and if agreeable to you, should be pleased to have it published. Such evidence was required by the Committee, as leaves no doubt of the accuracy of the statements.

Respectfully, yours,

JOHN W. PROCTOR.

Danvers, Nov. 21, 1822.

Mr. Daniel Burnham, of Newburyport, raised on one acre 117 1-4 bushels of Indian corn, weighing 50 lbs. to the bushel. The seed came from the upper part of the Missouri Territory. At present it is uncertain whether this kind of corn can be cultivated to advantage in common seasons.

Mr. John Lees, of Newbury, raised on one acre 103 bushels and 20 quarts of Indian Corn, weighing 51 lbs. to the bushel, 18 bushels of turnips, 1750 lbs. of pumpkins, 150 lbs. squashes—estimated equal to 118 bushels of corn to the acre.

Mr. Henry Little, of Newbury, raised on one acre 116 bushels and 9 quarts of Indian Corn, weighing 58 lbs. to the bushel.

Mr. Erastus Ware, of Salem, raised on one acre 93 3-4 bushels of Indian Corn.

Mr. Richard Crowninshield, of Danvers, raised on one acre 90 1-2 bushels of Indian Corn.

Mr. Daniel Mears, on the farm of the Hon. William Reed, of Marblehead, raised on one acre 87 1-2 bushels of Indian Corn.

Mr. Jacob Gould, of Boxford, raised on one acre 72 bushels of Indian Corn.

Mr. Isaac Dodge, of Hamilton, raised on one acre 70 3-4 bushels and 5 quarts of Indian Corn.

Mr. Jacob Wilkins, on the farm of Benj. T. Reed, Esq. of Marblehead, raised 50 bushels of Barley to the acre.

Mr. Henry Little, of Newbury, raised 687 1-2 bushels of English Turnips on one acre.

Messrs. *Silas and Joseph Little*, of Newbury, raised 615 bushels of English Turnips on one acre.

Mr. John Dwinel, of Salem, raised on 101 1-3 rods of land, 29 tons, one quarter, and 25 lbs. of Beets.

Mr. Dwinel also raised 8 tons and 3 cwt. of Carrots, on 111 1-2 rods of land.

Mr. David Little, of Newbury raised on one acre 970 1-2 bushels of Mangel Wurtzel, 2 bushels of Carrots, and 107 Cabbages.

The crops of Potatoes and Ruta Baga were not large.

From the New-York American.

The Battle of the Beets.—By this morning's mail, we find the papers from all quarters challenging the world to vie with the mammoth vegetables they respectively describe. These challenges, to say the least of them, are very harmless; and, as there is no probability that the contest will be settled by powder and ball, we feel little anxiety about being involved in the contest, as *participes criminis*, by republishing their notes of defiance.

And first from Ohio—the land of milk and honey. The Sandusky Clarion states that Ma-

jor Frederick Falley has this season raised Beet, from the seed of the *Bonaparte Sugar Beet*, which, after trimming off the leaves, weigh *thirty pounds*. It measured in length three feet and four inches, in circumference two feet and seven inches.

Next comes our own state, through the medium of the *Saratoga Sentinel*, the editor of which has possession of a large red Beet, raised in the garden of the Hon. Samuel Young, the present season, which measures two feet four and a half inches in circumference, and weighed, when taken from the ground, *eighteen pounds*.

And now, "Pennsylvania against the world" The Westmoreland Republican announces the satisfaction of having seen one which measured twenty-two inches and an half, and another twenty-three inches and three-fourths in circumference.

The Philadelphia Union also publishes an account of a "gigantic vegetable"—a beet, which grew in the garden of Mr. D. Kramer, which weighs *fifteen pounds and a half*, and measured at the thickest part thirty-four inches, and somewhat lower down twenty-seven inches. The Editor triumphantly asks, "*Who can beat this*." We refer him to the foregoing statements, and especially to the account in the Sandusky Clarion, which it must be admitted has sounded pretty loud on this occasion.

IMPORTANT INVENTION.

A gentleman of this State, to whom this country is much indebted for his former invention has lately completed a Machine for *Cutting Fur from Skins*, without injury to the Pelt, which has heretofore been rendered useless for leather. It is also ascertained, that this machine will shear Cloth much better than any machine now in use. One man can cut, with this Machine, the fur from 1000 skins per day, or shear 2500 yards cloth—whereas the cutting of the fur from 100 skins or shearing 120 yards of cloth is considered a day's work, by the present mode of cutting and shearing. Thus there is a saving of 19-20ths of the labour—the fur cut by this machine is pronounced, by good judges, to be better than that cut in the usual way.—Considering the great saving of skins, (particularly the seal,) and labor, we must pronounce it one of the most important inventions which has honored our country.

Palladium.

Hogs.—An Ohio farmer recommends coal, as useful in fattening hogs. After giving his hogs small quantity daily, say two pieces to each about the size of a hen's egg, they discontinued rooting, were more quiet, and appeared to fatten faster. He omitted the coal a few days and they commenced rooting; he gave it again and they ceased to root. He supposes that the coal corrects that morbid fluid in the stomach which incites them to root deep in search of fresh earth.

LARGE TURNIPS.

To the many extraordinary instances of the strength and fertility of our soil, we take pleasure to add, that William Ladd, Esq. of Minot, in this county, has raised on his farm, this year turnips of unusual size. He stated to us last week, that he weighed *three* of them, and their joint weight was *sixty pounds*! Beat this when you can.—*Portland Gazette*.

NEW ENGLAND FARMER.

Published every Saturday, by THOMAS W. SHEPARD, Rogers' Building, Congress Street, Boston; at \$2.50 per ann. in advance, or \$3.00 at the close of the year.

VOL. I.

BOSTON, SATURDAY, DECEMBER 7, 1822.

No. 19.

From the American Farmer.

FRUIT TREES.

Edgefield, South Carolina, Feb. 23, 1822.


"On Savage stocks inserted learn to bear."

There are few subjects more deserving the attention of the American agriculturist than the art of grafting, and few which are more unaccountably neglected. Not only to natural philosophers, but to whomsoever the works of naturalists can impart a charm; it must be pleasing to know something of that affinity in the saps of different trees, which qualifies one to bear the fruits of many, however widely differing in shape, size, and flavor. Thus every variety of plum, peach, nectarine, apricot, and almond will succeed well on the wild plum stock. The apple, pear, quince, medlar, service, and hawthorn, though differing with one another, will all agree to grow on the hawthorn, (*cratægus*.) The whole of the *Icosandria* class appears to discover a disposition to graft on each other. It seems somewhat derogatory to the character of American husbandry, that the third volume of the Farmer is nearly completed, and nothing like a lecture has yet appeared, upon an art, so productive of profit and pleasure. However desirable, I do not presume on the present occasion, to supply the deficiency here complained of. The very short time since my attention has been directed to the subject, forbids it; but my zeal in the cause, prompts me to begin, what I hope to see completed by an abler hand. Faith and philosophy appear to agree in the simplicity of the origin of all things.* From these premises we might conclude, that previous to all changes by accident or culture, all the fruits of the earth might have flourished on one parent stock! Culture seems to have full as much influence as difference of genus. As the apple and pear, apple and quince, cherry and plum, and even the wild and tame cherry, will not graft together, although of the same genus; while the apple and hawthorn, peach and rose will succeed together by grafting.† And I have been informed by practical grafters, that many varieties of cultivated apples refuse to grow on the wild crab stock. Phillip Miller speaks of the wild cherry as a stock for the tame, but there must be a difference between his variety and that of this country; or a further change has taken place since his time, as I can assert from repeated trials, both by budding and grafting, that an union cannot be effected. And if there be not more of poetry than truth in Virgil, many trees which claimed kin when he wrote, disown it now. According to this view of the matter, in the ratio that the different genera of trees recede from their original condition, will be the difficulty of uniting them by art. Thus, though the cultivated apple and pear will not graft together, perhaps the wild apple and stone pear might; scientific gentlemen who have the opportunity, owe it to philosophy to make the experiment. There is something sublime in the

idea, that the first cause should have left the fruits of the earth in their crude state, to be mellowed by the hand of man; that in effecting this salutary change, the conceit of his skill, by inciting exertion, should expel his inborn apathy so fatal to his happiness and glory. All the instructions I have ever seen on grafting, I know to be very imperfect. The old bungling method of applying three or four pounds of clay and stone-horse dung to the grafts, should have been long ago exploded.* The sole intention of a wrapper being to exclude the air from the wounds occasioned by the process, a cerate will answer the purpose far better, cheaper and neater; a piece of the size of a hazel nut being generally sufficient. And after the grafts have made some little progress in uniting with the stocks, the wax may be collected for future operations.

Almost every publication which I have had the opportunity to peruse, directs one third of turpentine in the composition of a grafting wax; this though very ductile and pleasant to use, I found certainly to destroy both grafts and stocks, as far as the wax came in contact with them. From the numerous respectable authorities recommending this wax, I was very liberal in its application to a number of choice grafts, without suspicion; but had the vexation upon the first inspection by removing the wax, to discover that a complete mortification had taken place under the wax; and even extending further in little lines along the grain of the wood. I separated the dead wood, and with a more friendly cerate, regrafted the surviving buds with success. Whatever may be the innocence of a wax containing one third turpentine in a northern climate, I was so well convinced from my trials of its deleterious effects in Carolina, as to reject it entirely. After many experiments to ascertain the best composition for a grafting wax, I prefer the following:—One measure of olive oil or hog's lard, 3 do. of melted bee's wax; mix well while hot, to be worked after it is cool, till sufficiently pliant. Perhaps sweet gum resin might form the basis of a more ductile wax, without imparting a destructive quality.—The following general rule may be observed by the novice in the science of grafting. All trees of the same genus, (not greatly altered by art,) will succeed together by inoculation. Those who have the opportunity and inclination to indulge in speculations on the production of vegetable hybrids‡ should try trees of the same class and order, or if differing in this particular, such as discover a similarity in the fruit, leaf, or sensible properties of the sap and wood, &c. Grafting is performed by making an operation upon

the wood of the stock, to which is attached the cut of a twig from another tree, both wood and bark, with an indefinite number of buds.* Tho' March and April are the usual months for grafting, it may be protracted till May, and even June, perhaps with better success than earlier; by keeping the grafts in a degree of moisture which will just prevent their withering. The stocks should not exceed the size of a large goose-quill, but if they are old, select limbs of the same size; if there be none, head down the stock and wait till they come; the grafts will be more neat and valuable for the delay. The twigs should be selected from a young healthy tree, and to be as nearly as possible of the same size with their stocks. They should be cut before the buds have begun to swell.

No other instrument is required than a sharp knife, with sufficient strength to perform the operation; a warm moist day should be preferred. Cut the stock even and smooth, split about half an inch with the knife, cut off a bit of the twig to be grafted, with one or two buds, wedge shaped, having one edge thicker than the other, fit very exactly the edges of the wood on the thick side. Then cover as much of the graft and stock as was wounded in the operation, with as much grafting wax as will exclude the air. There are other methods of grafting in the wood, but the method here laid down being the most simple and certain of success, I think it useless to describe any other. But the season of grafting is somewhat short and precious, whilst that of budding is lasting and very certain. Moreover, many trees will bud perfectly well, which will not graft at all; as the mulberry, &c. Budding or inoculation is the very simple art of ingrafting one tree on another; by making an incision through the bark only of the stock, sufficient to make bare a small surface of the wood; while a little strip of bark containing a single bud of a size corresponding with the incision made on the stock, is fitted exactly and speedily on the spot of wood deprived of its original bark. Although midsummer is the usual time allotted for budding, it may be performed with success from the first of May, till the last of September, or even later. I think I have succeeded better in September than any month with such buds as had a sufficiency of sap to peal freely. And to insure success, I will here remark, that both grafts and stocks should at all times abound with sap. For early budding select a shoot of the preceding year's growth; but if deferred to the time usually prescribed, (say midsummer) take the best grown shoot of the same year (with good prominent buds,) something larger than the size recommended for grafting. Cut out a little billet of wood about an inch long, having the bud in the middle; now having placed it on the stock intended to receive it, mark the bark thereof with the knife at each end; thus,  for the more precise fitting of the strip of bark to be introdu-

* See Owen's Arts and Sciences, Miller's Gardener's Dictionary, &c. &c.

† A vegetable hybrid or mule, is more expeditiously produced by grafting different genera than by introducing to each other, the blooms of the different sexes. It is a fact in vegetable, as well as animal physiology, that all mules are not barren. Thus the peach grafted to the rose, though in appearance a complete peach tree, bears roses only; nor can it be regrafted to either peach or rose. But the apple on the hawthorn is as capable of bearing fruit and regrafting as any other apple tree.

* I inserted some apple grafts about the middle of last November, the wounds have partially healed, and bid as fair to do well as spring grafts—grafting may be commenced as soon as the buds begin to swell, in spring.

* See the writings of Moses, Linneus, Darwin, &c. &c.

† There is considerable difficulty in uniting the peach to the rose; but when done, the growth is as luxuriant and perhaps more hardy than from its own root.

ced; then make an incision quite through the bark without materially injuring the wood.— Thus I now raise the bark with the thumb nail or point of the knife, and instantly apply the bark containing the bud, which may be conveniently separated from its wood by the thumb nail or point of the knife. Perhaps the operator will find it more convenient to cut out the billet opposite to the chosen bud. Thus the twig will now serve as a kind of handle to turn off the bud with more despatch and safety. But whatever method may be chosen for separating the bud, no time should be lost after having it adjusted, till it be close tied on with a woollen string, sufficiently strong for the purpose. Observing to wrap above and below the bud neatly, without compressing the bud itself. The strings should be smeared with grafting wax, which will make them better to tie, exclude the air, and remain sound for future operations. An evening or moist day should be preferred for this method of grafting also. One week is sufficient for the strings to remain, for if the buds have not effected their union in that time, they never will. If they do not appear withered at the time of removing the strings or shortly thereafter, it may fairly be presumed they will live; but if withered, the stocks may be forthwith rebudded. All the writers I have read on budding, state that the buds do not put out till the succeeding year! until Mr. Andrew Knight recommended the forcing of them by a strong ligature above the inserted buds, with the intent to check the flow of sap by them; but afterwards removes the ligatures, lest they have too much sap. This appears to me like watering a plant till it has a good start, and then withdrawing our care. After Mr. Knight has been at the trouble to remove his ligatures, he will find his initiated buds again checkered, if not starved by the older branches drawing the sap from them. My method of forcing I deem to be far more simple: so soon as I ascertain my buds will live, which may be known in about a week, if the stock be small I instantly head it down, with one stroke of my knife, immediately above the bud I wish to nourish. If the stock be large, I amputate the principal branches; the consequence is an immediate bursting of all the latent buds, together with the inoculated. As the ingrafted branches multiply, I diminish the number of the original ones, till nothing remains but the new tree; nor will it be long, till "*ingens exiit ad cælum ramis felicibus arbor, Miraturque novæ, frondæ, et non sua poma.*"*

From this simple treatment, my buds will extend if inserted early, many feet, with numerous branches the same summer, and be prepared to produce a crop of fruit the ensuing year; nay, more strange to tell, the same year in some instances. Let the theorising orchardist who is fearful of a summer pruning, (because his books nor father's have not told him of it,) recollect what is the consequence of breaking a riding switch, or half the boughs of a tree being torn off by weight of fruit, or other accident.— Whether is death the result, or a sudden produc-

tion of numerous thriving shoots, in some cases gay flowers? By the by, I think the growing season the proper time for pruning, and practise it accordingly. But whatever may be the principles of vegetable life, the buds of trees may be thus safely forced, and if they are not at some time, or other forced in the way here recommended, they will either never put out, or will put out only to starve; and the sooner they are thus pushed the better.

Rees's Encyclopedia objects to the buds extending the same year in which they are inserted, on the ground that they will prove too tender to resist the shock of winter; but these fears I can assert to be groundless; the last severe spring put this matter fully to the test with me; I had the buds of apricots, almonds, white walnuts, &c. in both states many which had not put forth, were completely destroyed, while those which had made progress resisted the storm.

The persimmon, (*Diosperos Virginiana*) and walnut, &c. will receive a tarnish on the surface of the wood, in a few seconds after the bark is separated from it. This is a chemical change in the sap, caused by its coming in contact with the air, which perhaps may defeat the operation and account for failures, and for the general opinion that these trees will not succeed at all.* But to insure success the operator must use the greatest dexterity; having cut through the bark of the stock as before directed, separate the bark containing the bud to be introduced; this done, keep it close pressed (without being moved from its wood) with the thumb and finger of one hand, while the bark is raised from the stock, with the other, having the string in readiness, apply the bud and confine it according to art. Perhaps there is no tree more difficult to bud than the Persimmon; but choice kinds may be sufficiently well propagated in this way. When budding the hickorynut, persimmon, chestnut, &c. grafting wax should be applied to the bud before it is confined with the string, and as much as squeezes out between the wrappings of the string, should be pressed down with the finger or thumb, so as effectually to exclude the air; which will make the operation more sure and prevent the depredation of small worms, which are liable to infest such trees under the inserted bark. This method of waxing should also be applied to the walnut and other difficult trees. The pecan (*Carya Olivaformis*) did not appear to take so well as the walnut, but my trials where made rather late in the season. I

* Rees's Encyclopedia says, the mulberry, fig, and walnut, will only ingraft by inarching; and Philip Miller, a very celebrated English gardener, says the apple will ingraft on none, but its own stock; but these are the mistakes of great men. I don't believe there is any tree that will bud more successfully than the mulberry: the walnut tolerably well, and from the few trials I made with the fig, I am induced to think there may be no difficulty with that. I budded some mulberry buds on the 11th of June, and by the 29th of August I measured one upwards of a foot in length, with ripe fruit.

Mr. Robert Lofton, living a few miles from Edgefield Court House, has ingrafted apple trees which he says have flourished upwards of 20 years upon a variety of indigenous hawthorn. I have been informed of another instance in the same district; and I have myself very luxuriant grafts on the parsley leaved hawthorn, which produced apples large, delicious and uncommonly sound. The most prolific source of ignorance and oppression is that of suffering great men to think for us. Crippled indeed would be the operations of nature were they controlled by the theories and conceits of the wisest man.

succeeded very well in budding the chestnut (*castanea esculenta*) to the dwarf chestnut or chin-quepin (*Castania Pumilo*), but from a neglect of a timely waxing had them destroyed by worms. It seems to be a prevalent opinion, that buds cannot be separated for any length of time, from the parent tree without ceasing to vegetate. I kept some cuts of the almond, peach and apricot, nearly a month in moist earth, and budded them with success. They may conveniently be preserved for a few day's journey, in wet cloth.— But unnecessary delays should, of course, be avoided. The art of budding and grafting, is particularly important in this country, where we have at command such a variety of hardy native stocks, and surplus land to devote to trees. The persimmon bears a fruit replete with sugar, which is never injured by the frosts, resists rot perhaps better than any other fruit; is a very great bearer, and will flourish without cultivation, on the poorest soils, whether of sand or clay, wet or dry. The wild plum will also grow on very poor land, and is durable; but grows too slow in general for a nursery stock: it should have attained a sufficient size previous to grafting (say three or four inches in diameter) to keep pace with the rapid growth of the peach and some plums—remembering always to insert the buds or grafts, as close as possible to the trunk, or a large limb. Under these circumstances the wild plum will be found an excellent stock for an extensive tribe, of delicious fruits. The same remarks will apply to the elegant parsley leaved hawthorn when used as a stock for the apple, pear, &c.; another advantage this stock (hawthorn) also has of the apple and most of the other hawthorns, it is very hardy, little choice of soils, and is never plagued with moss, as it sheds its old bark annually.— Gentlemen, whose land abounds with these hardy native stocks (instead of considering them a nuisance,) might, by selecting the hardiest and richest fruits for grafting, with a small portion of time and expense, have a profusion of them highly important to man and beast.*

I hope the readers of the Farmer will not be illiberal in communicating the result of their enquiries to the public, to whom they owe a debt, for reading your paper, which can only be discharged with intellectual coin; and let the miser in knowledge recollect, that it is a dark body indeed, which is always imbibing light without reflecting any. Nor can I dismiss this subject without inviting the attention of the ladies thereto; if the tree of knowledge was forbid them, this book of knowledge is not. Surely to know something of grafting is more worthy of their regard, than many of the transient amusements of fashion. Roman fashion, like a Proteus, ever changing; what is taste to-day is ridiculous to-morrow. But, the fashions of Nature are eternal as truth, and bestow blessings with an unsparing hand, on those who search them out! The rose will not only graft and bud well to its genus; but will take on those of a different one, by which the plain fruit tree is converted into an inimitable flowering shrub. This art being equally applicable to the propagation of flowering shrubs, as fruit trees, would

* In the spring of 1821, I transplanted some wild plum stocks, from 2 to 3 inches diameter, close pruned, whereon I grafted some peaches, plums, &c. I counted, in the fall of the same year, on a single graft, 228 flower buds.

* Dr. Darwin has given the following translation of this passage:

So shall the trunk with loftier crest ascend,
And wide in air robust arms extend,
Nurse the new buds, admire the leaves unknown,
And blushing bend with fruitage not its own.

Ed. N. E. Farmer.

add much to the flower garden. Perhaps there is no employ or amusement better calculated to wear the mind from sorrow, than this truly innocent one; and while it affords a present enjoyment, awakens the hope of more in future. After what has been written, shall I attempt an eulogy on an art, which enables us to collect from all quarters of the world (climate not forbidding) the most choice fruits, and plant them on stocks hardy and mature, capable of affording as much fruit in two or three years as the seed would yield in a dozen or more. And who can deny, from our present imperfect knowledge of grafting and the hardy hybrids producible thereby, but that trees, destined to eternal barrenness may be burthened with the produce of the palm, the olive, or the bread fruit tree? We have seen the peach "blossom as the rose;" and with our present knowledge of the principles of ingrafting, it is practicable for every moderate farmer, by devoting to the exercise of this art, the time he is wont to sacrifice to inglorious sloth, or criminal amusement; to create a paradise of fruits and flowers, where thorns and briars now grow but to curse his land.

This communication has spun out to a much greater length than I intended at the commencement; but in the progress I thought, as encyclopedias and dictionaries of arts and sciences, &c. were not accessible to all your readers, it might not be amiss to describe the processes at length. However, if you find fault of the length, you can prune the superfluous shoots, or make any disposition of it you think proper.

I will trespass no further on your patience, than to wish you all the success your zeal has merited.

ABNER LANDRUM.

AGRICULTURAL PROFESSORSHIP.

The Agricultural Society of Albemarle, Virginia, of which Mr. Madison is President, has founded a Professorship of Agriculture, at the University of that State, and voted \$1000 for its support. Mr. Madison has addressed a circular to the presiding officers of different Agricultural Societies, from which, by the kindness of S. W. POMEROY, Esq. Vice President of the Massachusetts Agricultural Society, we have been permitted to publish the following extracts:

SIR—The enclosed Resolutions of the Agricultural Society of Albemarle, explain the wish of the Society to provide for Agriculture the advantage of a Professorship, to be incorporated in the University of Virginia; the means proposed for making the provision; and the hope entertained of a general co-operation in the scheme.

The present seems to be an important crisis in the Agriculture of Virginia. The portions of her soil first brought into cultivation, have, for the most part, been exhausted of its natural fertility, without being repaired by a meliorating system of husbandry; and much of what remains in forest and can be spared from the demands of fuel and other rural wants, will need improvement, on the first introduction of the plough.

These truths are now sufficiently impressed on the public attention; and have led to the establishment of the Agricultural Societies among us, which are so laudably promoting the work of reform.

As a further means of advancing the great object, it has occurred to the Albemarle Society,

that a distinct Professorship in the University of the State, if sanctioned by the proper authority, might be advantageously appropriated to the instruction of such as might attend, in the theory and practice of rural economy, in its several branches.

To the due success of agriculture, as of other arts, theory and practice are both requisite.—They always reflect light on each other. If the former, without the test of the latter, be a vain science; the latter without the enlightening precepts of the former, is generally enslaved to ancient modes, however erroneous, or is at best but too tardy and partial in adopting salutary changes. In no instance, perhaps, is habit more unyielding, or irrational practice more prevalent, than among those who cultivate the earth. And this is the more to be lamented, as agriculture is still so far below the attainments to which it may fairly aspire.

A professorship of agriculture might derive special advantage from the lights thrown out from the chair of Chemistry in that Institution. This science is every day penetrating some of the hidden laws of nature, and tracing the useful purposes to which they may be made subservient. Agriculture is a field on which it has already begun to shed its rays, and on which it promises to do much towards unveiling the processes of nature to which the principles of agriculture are related. The professional lectures on chemistry, which are to embrace those principles, could not fail to be auxiliary to a professorship having lessons on agriculture for its essential charge.

The fund contemplated for the support of such a professorship, is to consist of a sum drawn from unexpended subscriptions, from special donations, and from a diffusive contribution not exceeding a dollar from an individual. It is hoped, that for a purpose of such general utility, the number of contributors will more than make up for the smallness of the respective sums; and that with the other resources, means may be gathered not only adequate to the immediate views entertained; but justifying an enlargement of them.

Should this prove to be the case, it will be an improvement of the plan of agricultural instruction, to provide and place under the superintendence of the Professor, a small farm in the vicinage to be cultivated, partly as a pattern farm illustrating practically a system at once profitable and improving, partly as an experimental farm, not only bringing to the test new modes of culture and management, but introducing new plants and animals deemed worthy of experiment. In obtaining these, aid might be found in the patriotic attention of the public and private Naval Commanders, in their visits to foreign countries; and it might well happen that occasional success in rearing new species of varieties, of peculiar value, would yield in seeds and stocks a profit defraying the expences incurred on this head.

A farm exhibiting an instructive model, observed as it would be by occasional visitors, and understood as it would be in its principles and plans, by students returning to their dispersed homes, would tend to spread sound information on the subject of agriculture, and to cherish that spirit of imitation and emulation which is the source of improvement in every art and enterprise.

Agricultural Society of Albemarle, Oct. 7, 1822

On the motion of Gen. JOHN H. COCKE, the following Preamble and Resolutions, were adopted:—

WHEREAS, the establishment of a Professorship of Agriculture, in one of the principal seminaries of learning in this State, is a measure eminently calculated to hasten and perpetuate the march of agricultural improvement, already so happily commenced; And whereas, there are grounds to believe that such an institution may be incorporated into the University of Virginia, a position at once the most advantageous and convenient to every part of the State: And whereas this Society could not make an appropriation of its funds more conducive to the permanent attainment of the primary objects of its institution—and as it is reasonable to expect that all the Agricultural Societies, the Farmers and Planters generally, will cheerfully contribute to an Establishment of such universal interest—Therefore

Resolved, That one thousand dollars of the sum, now in the hands of the Treasurer of this Society, be appropriated to the establishment of a Fund, the profits of which shall go to the support of a Professorship of Agriculture at the University of Virginia.

Resolved, For the furtherance of this design, that the President be requested to prepare an address to the other Agricultural Societies of this State, requesting their co-operation in this scheme—and further to promote the same object, and increase the said fund, that a committee be appointed to solicit donations not to exceed one dollar from individuals in every part of this Commonwealth.

Resolved, That the aforesaid appropriation, together with all that may accrue under the foregoing Resolutions, be loaned to individuals on good personal security, or to corporate bodies; and that when the sum loaned to any one individual shall amount to one thousand dollars or upwards, landed security shall be required: That the interest shall be payable semi-annually, and shall be reinvested, until the yearly profits of the Fund shall be sufficient to afford an income equal at least to a Professorship in the University.

Resolved, That the funds above referred to, together with donations of books, and property of any other description, be with the permission of the Legislature transferred to the Rector and Visitors of the University in their corporal capacity. (*Extract from the minutes.*)

P. MINOR, Sec'y.

From the Philadelphia Democratic Press.

On Tuesday night the audience at the City Theatre were exceedingly amused by the representation of "Modern Honor." The laughter was loud, long and oft repeated; nay sometimes shouts of applause were heard. The use of cologne water to soften the hands, of oak bark to make the skin bullet proof, and the lutestring dress to render the person invulnerable, were all duly served up with appropriate dialogue and action. The squatting and dodging was performed by Sambo Puffy and Cæsar Huffy, valets to Col. Bombastes Puffy and the Hon. Mr. Huffy. The song of "Oh cruel am de Bullet Ball," was encored; the whole piece was well received and was given out for a second representation amidst shouts of applause.

COMMUNICATED FOR THE NEW ENGLAND FARMER.

SUN FLOWER OIL.

It appears from experiments made formerly in this State, that a bushel of Sun-flower seed, yields a gallon of oil, and that an acre of ground planted with the seed three feet apart, will yield between forty and fifty bushels of the seed. This oil is as mild as sweet oil, and is equally agreeable with salads, and as a medicine: It may also be used with advantage in Paints, Varnishes, and Ointments. From its being manufactured in our own country, it may always be procured in a fresh state. The oil is pressed from the seed in the same manner, that cold drawn linseed oil is obtained from flaxseed, and with as little trouble. Sweet oil sells for six shillings a quart. Should the oil of the Sun-flower sell for only two thirds of that price, the product of an acre of ground, supposing it to yield only forty bushels of the seed, will be £32,—a sum far beyond the product of an acre of ground, in any sort of grain. The seed is raised with very little trouble, and grows in land of moderate fertility. It may be gathered and shelled, fit for the extraction of the oil, by women and children.

Various uses of the Helianthus annuus, or common Sun-flower. Translated from a Portuguese work, entitled 'Biographia dos alkalís fixos,' published in 1798 at Lisbon, by Jos. Mar. Da Corse Jeillose.

1. The sprouts are eat with oil and salt.
2. Bread is made from its seeds, and also gruel for children.
3. Some American nations eat the seed.
4. The seed gives oil for several uses.
5. It fattens fowls.
6. Its leaves are excellent food for cattle in summer, and increases the quantity of milk in cows; they are easily gathered, being of a large size, the inferior are to be first gathered.
7. They are also good for sheep.
8. Its stems can be used to support climbing plants, instead of poles.
9. They serve for fuel. An economist of Frankfort found them as good as willow wood for this use. He planted two acres and a quarter, and by that he saved in a winter, thirty dollars, and had oil worth twenty-eight dollars.
10. Lastly, they furnish excellent ashes. The seeds when roasted have the flavour of coffee, and the infusion of them in the manner of tea, is a pleasant beverage.

From the New York Evening Post.

We lately saw in the English papers, an account of a marvellous discovery in the art of tanning. It is stated in the London Globe that the discoverer sold his secret to a member of parliament for 10,000*l.* in hand, 5,000*l.* on the first of January, 5,000*l.* per annum for four years next succeeding, and afterwards, 11,000*l.* a year for life. The following articles from the Liverpool Mercury, however, contains a satisfactory disposal of it.

LEATHER TRADE.

To the Editors of the Liverpool Mercury:

Gentlemen,—I lately observed a paragraph in your independent paper, announcing that a discovery had lately been made "to tan leather in six weeks that usually requires twelve months, at less than half the expense."

The moment I read it, I declared it must be a fable; but, for curiosity's sake, I was resolved to trace it, if possible, to its source. This I have done, and find it quite as fabulous as I thought, though I must do the authors, (who are

respectable, and treated me with every civility,) the justice to acquit them of all wilful misrepresentations: but I have since every reason to believe that the rumours in question alluded to our manufactory at Dorking, wherein, (according to advertisements) crop hides are tanned in four months instead of sixteen, without greater expense than oak bark, averaging 8 *lb.* each above the raw halves or standard.

Knowing, gentlemen, that you never wilfully give the smallest countenance to idle and fallacious rumors in your columns, I have felt it my duty to address you upon this matter, being convinced that you are always ready to correct misstatements, by giving them equally public contradiction.

Having observed some remarks published last May, in the British Traveller, also respecting our manufactory at Dorking, we take this opportunity to add a few plain facts, proving the value and utility of our most providential discovery to the trade, to the revenue, and to the nation.

Suppose a tanner turns out 100 cow hides per annum, of 80 *lb.* each, making them weigh 40 *lb.* each when tanned, according to the rules of the old trade (confirmed by Mr. John Underhill, acting chairman of the committee of the Leather-Trade, at Bermondsey, as advertised in the *Times* of the 27th May last) viz. "that 2 *lbs.* of raw hide are required to make 1 *lb.* of leather." Such common tanners may be enabled by the use and knowledge of our process (which is both cold and vegetable) to tan 3000 similar raw hides in one year, making them weigh, on fair average, 8*lbs.* each above the raw halves, thus creating 24,000 extra weight of leather! which, at 1*s.* 6*d.* per *lb.* is 1800*l.* per annum additional profit.

Computing the Excise Duty, as lately submitted to the House of Commons, at 655,424*l.* 1*s.* 8*d.* per annum, the weight of leather is above fifty millions of *lbs.* and one-sixth increase of weight (as described above) nearly nine millions of *lbs.* at 1*s.* 6*d.* per *lb.* is no less than 675,000*l.* per annum, derivable by the trade and the public; and if the old duty had not been half repealed, the revenue would have benefited 109,166*l.* per annum, or 54,583*l.* at the present rate of duty.

But duly considering the great advantages of weight alone, it would have been impolitic to repeal the old duty, as the tanners might have been placed better than duty free, while the revenue itself would then have really been about 437,000*l.* more than it is now, and thus (upon moderate calculation) above one million sterling may be annually saved.

I deem all further remarks superfluous, except that I hope every editor who copied the fabulous paragraph will feel it a duty due to the British Leather Company, and to the public, to follow it, by inserting this letter likewise.

I am with due respect, sir, your most obedient servant.

JOHN BURRIDGE, Secretary.

Fuller's Earth.—A gentleman at Sag Harbor, Long Island, forwarded to us sometime since a box of fuller's earth, from a bed which he owns; we put it into the hands of two experienced fullers who have pronounced it to be of an excellent quality.

Connecticut Gazette.

FACTS AND OBSERVATIONS RELATING TO AGRICULTURE & DOMESTIC ECONOMY.

FOR THE NEW ENGLAND FARMER.

SALT AND MILDEW.

A correspondent writes us word, that when this subject was mentioned before (1819) he tried salt water for the prevention of this disease, which was then prevailing on his crop; but it had no effect in staying the progress of the disease, and eventually the straw became quite black. As he states that he tried this but on a patch, and took great pains, it seems to follow that such a sprinkling as whole fields could obtain would be entirely useless. We state these facts, as our duty is to prevent delusion, and thoroughly to canvas the merits of a very imposing claim to public gratitude.

Farmers' Journal.

DAMP IN WALLS.

An easy and efficacious way of preventing the effects of damp walls upon paper in rooms has lately been used, and (as we understand) with complete success. It consists of lining the wall, or the damp part of it, with sheet lead, purposely rolled very thin; this is fastened up with small copper nails, which not being subject to rust are very durable, and the whole may be immediately covered with paper. The lead is not thicker than that which is used in the chests in which tea is imported, and is made in sheets, of which the width is about that of common paper hangings.—*ibid.*

POWER OF THE HORSE.

The couriers of Russia travel from Petersburg to Tobolsk, a distance of 19 deg. 26 min. in twelve days. Their rate of travelling is of course about one hundred miles a day. What, in equestrian phrase, is called a great mover, will, without pressing, trot 640 yards in eighty seconds.

DENTIFRICE.

Take sage and salt, of each a like quantity, and pound them together; then bake the mixture till it be hard, and make a fine powder thereof, then therewith rub the teeth evenings and mornings, and it will take away all yellowness.—*Markham's English Housewife.*

FEEDING COWS WITH CABBAGES.

When cabbages are given to milch cows, the decayed and musty leaves must be taken off, or they will impart a bad taste to the milk and butter.

TO MAKE POMONA WINE.

The directions published by Mr. Cooper, of New Jersey, for making wine of cider and other ingredients, which may properly be called *Pomona Wine*, are as follows.—"Take cider of the best running of the cheese, and of the best quality, and add to it as much honey as will make the liquor bear an egg; strain the liquor through a cloth as you pour it into the cask; fill the cask full, with the addition of two gallons of French brandy to a barrel; set it away in a cool place, with the bung-hole open to ferment; as the fermentation proceeds, it will throw out considerable froth and filth; keep filling it frequently with more of the same kind of liquor, kept for the purpose, till the fermentation has nearly subsided; then put in the bung,

ut not tightly, in order that the liquor may have some further vent, and as soon as the fermentation ceases, close up the vessel. The next spring rack off the liquor into a new clean cask; and in order to clarify it take the whites of six eggs, with a handful of fine beach sand, washed clean; stir them well together; then oil a quart of molasses, and cool it by pouring in cider, and put this together with the eggs and sand into the liquor, and stir the whole together."

The Farmer's Assistant says, "It is believed that about a quart of sweet milk to a barrel, well stirred and mixed with the liquor as it is poured in, will answer equally well, perhaps better. This operation alone will not only clarify liquors, but by repeating it several times, the highest colored wines may be nearly or quite divested of all their color."

"After the liquor has been thus clarified, let it be again drawn off into bottles, or into fresh clean casks, and kept in a cool cellar for use. Ice, however, is essential for perfecting this kind of wine, as well as all others."

CARBONIC ACID GAS, OR FIXED AIR, NECESSARY IN CIDER.

It is well observed in the Domestic Encyclopedia, that "it is of great consequence to prevent the escape of the carbonic acid, or fixed air from cider, as, on this principle, all its briskness depends. To effect this, various expedients have been contrived. In the state of Connecticut, where much cider is made, it is a common practice to pour a tumbler of olive oil in the bung hole of every cask. Upon the same principle we have lately heard of a man who boasted that he had drank brisk beer out of the same cask for five years, and that his secret was to cover the surface of the liquor with live oil. Dr. Darwin also says that he was told by a gentleman who made a considerable quantity of cider on his estate, that he procured casks of stronger construction than usual, and that he directed the apple juice, as soon as it had settled, to be bunged up close, and that though he had had one vessel or two occasionally burst, by the expansion of the fermenting liquor, yet that this rarely occurred, and that his cider never failed to be of the most excellent quality, and was sold at a great price." Probably casks filled with fresh cider, bunged up tight, and sunk under water or buried in earth, might run no risk of bursting, and no doubt the cider kept in that way would be well preserved, and in time properly fined.

VARNISH FOR IRON OR STEEL.

The Nantucket Inquirer states that "A permanent varnish is obtained by rubbing iron in a state nearly red hot, with the horny hoofs of cattle, which are previously dipped in a small portion of oil; this process is asserted to afford the best defence from the destructive influence of air and humidity."

PATENT HORSE SHOES.

Col. Goldfinch, of Hythe, (Great Britain,) has obtained a patent for a new method in the formation of horse-shoes. The improvement consists in making the horse-shoe in two parts, or separating it in two pieces, by cutting it through near the toes. The object of the contrivance is, that the frogs of the horse's hoof may be enabled to expand and grow in a heal-

thy state. The separation is to be made in an indented form, and the two parts fastened together by pins. It is further proposed to attach the shoe to a horse's hoof, by driving the nails obliquely, as in the French manner of shoeing. For this purpose, the situations of the nail holes are to be from about one third to half the width of the shoe distant from its outer edge, and tending in a slanting direction outwards.

Evening Gazette.

FARMING—CHEMISTRY.

Leland, in his Memoirs of the celebrated French chemist Lavoisier, states, that he cultivated 240 acres of land in La Vendee, on chemical principles, in order to set a good example to the farmers, and his mode of cultivation was attended with so much success that he obtained a third more of crop than was obtained by the usual method, and in nine years his annual produce was doubled.

SMALL CATTLE OFTEN THE MOST PROFITABLE. [From Anderson's Recreations.]

"Take a mastiff, a greyhound, and a shock dog, whose weights are respectively sixty, thirty, and fifteen pounds each.

"If I have been rightly informed, the quantity of food required to keep these dogs in good condition would be, nearly, for the mastiff, one pound; for the greyhound one pound; for the shock dog three ounces, a day. Of course, one hundred pounds of food would nourish of mastiff flesh six thousand pounds; of the greyhound ditto three thousand pounds; of the shock dog ditto about eight thousand pounds; so that the loss in employing the second, when compared with the first, would be as two to one; and that of employing the second, when compared with the third, would be as two and three-fourths to one nearly.

"The above statement is not given as being absolutely accurate, but merely as illustrative. And as something of the same kind, though not perhaps to an equal degree, takes place between different breeds of cattle as of dogs, it is not a matter of such simple calculation as it has been usually supposed, to ascertain whether it will be the most beneficial in a particular case to adopt a large or small breed of cattle. It is, indeed, impossible that it ever can be done in that general lumping way; for, if ever the real qualities of different breeds shall come to be accurately ascertained, it will, doubtless, be found, that they vary in regard to so many particulars, that perhaps no one rule can ever be made general, because, from the peculiarities of the case and the nature of the circumstances, it may sometimes happen that a large breed may be preferable to a small one, or *vice versa*; and that, by a very small variation of circumstances, the case may be reversed. But if two breeds could be found that were equal in all respects, there are many circumstances in which the small would be preferable to the large.

"In the first place, a small animal, if put upon pasture fields where the surface is a little soft, will be more easily supported than one of larger weight, and not be so apt to poach it.

In the second place, there are innumerable situations in which small beasts will be much better suited to the accommodation of a family than a larger, or in which it would be more desirable to have three or four instead of one. Many a poor person would have abundance of food for

a small cow, who could not possibly maintain one of a larger size; and the quantity of milk that such a cow would yield may be exactly suited to the wants of the family, where a larger quantity would only prove distressful. Persons in moderate circumstances too, where the risk is divided, are much less in danger of being thrown into distress by deaths, than they would be if all were in one; and, as the cows may calve at different times, they are less in danger of being totally deprived of that useful article milk, at one time, and of having it in too great quantity at another. The supply becomes more equal; they never experience either superfluity or want. In like manner, a family that lives in the country, if it be moderately large, can easily consume a small beast of their own killing, whereas a large one proves distressful to them; one half of it must be eaten before it is fit for use, or a great part of it must be thrown away as being tainted. Every person in such circumstances must know, that three or four small beasts would be, to them, of more than twice the value of one that was equal to them in weight.

Lastly, small beasts will always find a ready market, and will usually bring a higher price in proportion to their weight, than large. The very reasons already assigned bring more purchasers. Is it for milk? How many more can reach the price of a small cow than a large one? Is it for rearing? How many have keep for a small one, that could not have it for one of a larger size? Is it fat, and for the butcher? Perhaps in Smithfield market it may make little difference; but in other places there are many who will choose the small in preference to the large. All this is on the supposition that the meat is of an equal quality in both cases; but if it should happen, that the small meat is also finer and more delicate than the large, the difference in its favour would be still more considerable.

"From these considerations it appears, that the mere size of a breed of cattle is not a matter of indifference; and particularly, that those of a diminutive size ought not to be rejected with contempt, as they too often seem to be. They ought rather to have their qualities carefully investigated; because, as we have evidence in the dog species, that some small kinds possess excellent qualities which cannot be found in any that are of a larger size, it may so happen, that similar valuable qualities may be found to peculiarise some of the smaller breeds of cattle. They, therefore, deserve our particular attention; for if any of them shall be found to be truly valuable, they will tend more to augment the comforts of those who are among the most helpless individuals of the community than any other, while they may at the same time add to the luxurious dainties with which the tables of the rich, though plentifully loaded, are not yet by them deemed to superabound."

BUTTER.

This delicate and valuable domestic article, it is known, is manufactured in considerable quantities in Orange county. At a recent cattle show at Goshen, it appeared that John M. Graham made 2535 lbs. of butter from 20 cows.—His farm is only 95 acres; he has 39 hogs kept on milk, which will weigh 200 lbs. each, when killed. Col. Moses Crawford, of Montgomery, produced 2051 lbs. of butter from 20 cows.

From the New-York Statesman.

American Hats.—Two fine specimens of domestic fabric—the one a bonnet and the other a gentleman's hat made of the spear-grass—have been politely forwarded to us, and may now be examined at this office. These articles were manufactured by Miss Mary Lamb, of Stamford, Delaware county, a young lady of the age of fifteen, who informs us, that she received no other instructions than were derived from the columns of the Statesman. Her own ingenuity supplied the rest. As the hat was presented to one of the editors of this paper, we hardly dare to speak of these beautiful fabrics in the manner they deserve, lest our opinion in this case should be supposed to be warped by undue biases.—We may at least, however, record the judgment of others, who have pronounced them equal to the best imported Leghorns. It is to be regretted they did not arrive in season for the Fair in this county, and to have been offered for premiums. Miss Lamb, in a polite note accompanying these articles, states “that there is plenty of grass of all sizes on the banks of the Delaware, and willing hands to work it up, could they but meet with a little encouragement.” We hope and trust such encouragement will never be wanting in an enlightened community, whose interest it is to promote female industry. The association lately established in this city for encouraging domestic manufactures, and who are to hold stated Fairs, will be of great service, by becoming the depositories of ingenious fabrics from remote parts of the state, and in cases where the owners cannot be present to superintend the exhibition and sale of their commodities.

We cannot conclude this brief notice, without publicly acknowledging the high compliment paid us by Miss Lamb. Such an honor was as unexpected as it is flattering. A more acceptable present could not have been received. Composed as it is of materials gathered from the fields of our own country, and woven by the hand of one of her ingenious and patriotic daughters, we shall value it more highly than the most splendid fabrics imported from foreign lands; and while it shall shade the brow from the sultry suns of summer, it will be a memorial to cheer us with the recollection of our past exertions, and stimulate us to renewed efforts, in the great cause of national industry.

From the same paper.

Domestic Manufactures.—Our attention has been called to an extensive chemical manufactory, in the village of Greenwich, for the preparation of the following among other articles: Alum, Blue Vitriol, Oil Vitriol, Aq. Fortis, Spt. Nitri Fortis, Nitric Acid, Muratic do. Alcohol, Ether, Vitriol, Tartar Emetic, Refined Camphor, do. Salt Petre, do. Borax, Corrosive Sublimate, Calomel ppd. Red Precipitate, Spts. Nitri. Dule. do. Sal Ammon Fortis, Aqua Ammonia, Flowers Benzoin, Calcined Magnesia, Rochelle Salts, Glauber's do. Sal. Soda, Super Carbonate of Soda, and Tartaric Acid. This manufactory is already in a flourishing condition; but to give it increased facilities and to warrant its extension, notice has been given, that application will be made for an act of incorporation, at the approaching session of the legislature. An establishment so deserving of public patronage and the fostering care of the state, needs no ar-

guments to enforce its claims. The chemical substances prepared in this manufactory are pronounced to be fully equal to the best importations; and as many of the articles above enumerated are expensive, and extensively used in medicine and the arts, it is obviously for the interest of the country to encourage the enterprise and industry of its own citizens, and retain at home the funds, which now go to other nations for the purchase of these commodities.

Judge Pettibone, of St. Charles, Missouri, in digging for water, has discovered Stone Coal of a superior quality, and it is thought of inexhaustible quantity.

THE FARMER.

BOSTON:—SATURDAY, DEC. 7, 1822.

ON SAVING AND MAKING THE MOST OF MANURE.

(Continued from page 135.)

In our last number on the subject of these essays, we gave brief sketches of some of the principal theories which philosophers have from time to time adduced, and endeavored to support, relative to the food of plants. We likewise attempted to point out defects in those theories, and gave some reasons for entertaining a preference for the hypothesis of Sir Humphry Davy, which is, in substance, that no one kind of matter can be considered as furnishing the food of plants, but that vital air, [oxygen] charcoal, [carbon] inflammable air, [hydrogen] and that kind of gas or air, which forms a great part of the atmosphere, and which is not respirable, and will not support combustion, and is called azote, [nitrogen] form the principal sustenance of plants. It is true that other substances are found in plants by chemical analysis, but some of those substances are, probably, accidentally introduced, and others though generally esteemed simple bodies, are most likely to turn out compounds, whenever chemical analysis shall be carried to the degree of perfection which some modern discoveries appear to promise.* “The four earths

* Although the elements which constitute the greatest part of organized vegetable matter are oxygen, hydrogen, and carbon, yet a little nitrogen or azote is found in some of the products of vegetation, such as albumen, gluten, &c. But “from some late experiments it seems probable that nitrogen is not a simple substance.—See Phil. Mag. vol. xxxiii. p. 173. Indeed the experiment of Dr. Priestly, by which he procured several portions of nitrogen from the same distilled water, by repeatedly freezing it, seems to confirm this opinion.—See Nicholson's Journal. 4to. vol. iv, p. 137. But the novel experiments of Sir Humphry Davy are more to the purpose. From these it would appear that nitrogen is a compound of hydrogen and oxygen.—See Phil. Trans. for 1809. Priestley conceived it to be a compound of oxygen and phlogiston.—See his pamphlet entitled ‘Experiments and Observations relating to the Analysis of Atmospheric Air, &c. 1796, p. 11.’—Parker's Chemical Catechism, p. 47, 10th ed.

It seems then, that although some vegetables exhibit, on chemical analysis, nitrogen, as well as carbon, oxygen and hydrogen, yet, as the first mentioned is only a compound of the two last, we may omit it in our tale of the chemical products of vegetation, except when, in common parlance it may be convenient to retain a term in common use. Moreover, the oxygen and hydrogen found in vegetables are, we believe, generally, combined in the proportions, which constitute water. Of course carbon and water compose nearly the whole substance of vegetable matter; the carbon being, for aught that yet appears, a simple substance, and the water a compound of oxygen and hydrogen. Here we have a further approximation to M. Braconnet's theory, (as stated No. 17, p. 131.) that “oxygen and hydrogen, with the assistance of solar light, appear to be the only elementary substances employed in the con-

(viz. clay, sand, lime and magnesia) the various acid the alkalis, the oxids of iron and magnesia, and several saline compounds, all find their way, through the medium of the sap either suspended in it mechanically or combined with it by chemical affinity, into the heart of the organized structure. I am not certain whether it be very correct, in point of language, to describe these as constituent parts of the food, because they are detected in plants on incineration, and other modes of analysis, any more than it would be warrantable to call lime, phosphorus, sulphur, and a multiplicity of acids constituent parts of animal food, on the simple ground of their being found in the bones and secretion of the body; so that the common doctrines of exalting whatever may be yielded on analysis into the pabulum of vegetation, is both questionable and dangerous philosophy, and the rather, because it is a known fact that ashes of many plants abound with substances predominating in the soil that produced them. We shall, in all probability, come nearer to the truth, by considering the putrescible manures, and the sap only, as the elements of food; and the other bodies as subservient, though in a less degree, to the health, solidity, strength, or the right performance of the vegetable functions.”

Carbon, oxygen and hydrogen, being the constituent substances which make up the various products, formed by the wonderful process of vegetation, it may be considered as but little short of a perpetual miracle that so many and such diversified ingredients should be the results of different modifications of those two or three simple elements. Sir Humphry Davy states that “the compound substances found in vegetables are 1. gum, or mucilage, and its different modifications; 2. starch; 3. sugar; 4. albumen; 5. gluten; 6. gum elastic; 7. extract; 8. tannin; 9. indigo; 10. narcotic principle; 11. bitter principle; 12. wax; 13. resins; 14. camphor; 15. fixed oils; 16. volatile oils; 17. woody fibre; 18. tannin; 19. alkalis, earths, metallic oxides and saline compounds.” These substances, many of which appear to possess qualities diametrically opposite, are, notwithstanding, composed of the same elements, but in different proportions.

Thus 100 parts of sugar contain	23 carbon, 8 hydrogen, 64 oxygen.
100	
100 parts of acetic acid or vinegar, contain about	50 carbon, 6 hydrogen, 44 oxygen.
100	
100 parts of olive oil about	77 carbon, 10 oxygen, 13 hydrogen.
100	
100 parts of the wood of oak about	52 carbon, 42 oxygen, 6 hydrogen.
100	

stitution of the whole universe.” If carbon, like nitrogen, can be resolved into oxygen or hydrogen, or a compound of both, or can be supposed to be compounded of “solar light” and oxygen and hydrogen, or either of them, we have M. Braconnet's theory advanced another step towards proof positive. M. Braconnet's vegetables obtained various earths, alkalis, acids, &c. either from atmospheric air, which consists of oxygen and azote, with a minute quantity of carbonic acid, or from water (oxygen and hydrogen.) The carbon found in them by analysis might be taken from the carbonic acid gas of the atmosphere. The other products thus found, it should seem, must have been derived from distilled water, or pure oxygen and hydrogen.

* Letters of Agricola.

100 parts of albumen from the white of the egg about

53 carbon,
24 oxygen,
7 hydrogen,
16 nitrogen.

100*

Nitrogen is rarely found in vegetables, but "the incipal part of the almond, and of the kernels of many other nuts, appears from the experiments of Proust, to be a substance analogous to coagulated albumen, or hite of an egg."

The above are the principal elementary substances which enter into the composition of all vegetables. Those of animals are nearly the same, the only material difference consisting in the uniform presence of nitrogen in animal matter. When vegetables are growing they imbibe or make food of these substances either by their leaves or their roots, but principally by the latter. Any thing that has ever breathed or vegetated, at last or ever had lungs or leaves, may constitute an animal or the food of plants. The moment that animal or vegetable life is extinct in any individual of either of those kinds of beings, the process of decomposition (in the ordinary temperature of the atmosphere) commences. This decomposition is effected by putrefaction, which is more or less rapid, according to the temperature of the atmosphere, and other circumstances, more or less favorable to the dissolution of the decaying body. Putrefaction, however, cannot take place without the aid of water and air; and caloric, or that matter which communicates to us the sensation of heat (is likewise an indispensable requisite of this process. During the progress of fermentation, however, not a particle of the decaying substance is annihilated, but the minute and invisible atoms of carbon, hydrogen and oxygen, which formed the body which is decomposing, are unlocked or unclenched, or otherwise set at liberty; and are ready to enter into new combinations. These particles or atoms every good farmer will, as far as possible, arrest and convert to the use of his plants, by means which have been heretofore in part explained, and will be further elucidated hereafter in the course of these essays.

We have now given a few brief and imperfect sketches of some subjects connected with agricultural chemistry, partly with a view to render the topics of which

* We have omitted the fractions in the numbers expressing the proportions of the constituents of the vegetable substances here enumerated, from a desire, as much as possible to simplify the subjects of our remarks.

† The following lines from Creech's Lucretius may, perhaps, induce the reflecting reader to frequently turn his mind's eye to objects of great importance, although small for corporeal vision.

Know there are bodies, which no eye can see,
And them from their effects, we grant to be,
First the winds disturb the seas, and tear
The stoutest ships, and chase the clouds through air;
The numerous odours too, whose smells delight,
And please the nose are all too thin for sight;
The sides fresh clothes extended near the main,
How wet; but by the sun are dried again.
What eye saw when first the moisture sate?
When it rose, and fled before the heat?
Before we must conclude the drops to have been
Dissolved to parts too subtle to be seen.
More, 'tis certain every circling year
The rings, which grace the hands diminish there,
The lips wear out stones, and while we plough, the share
Grows less.

Lastly, not even the sharpest eye e'er sees,
What parts to make things grow by just degrees
Nature does add; nor what she takes away
When age steals softly on, and things decay,
The same seeds compose both earth and seas,
The sun, the moon, all animals and trees,
And their contexture, or their motion disagrees.

we are treating more intelligible than would otherwise be possible, and partly with a hope of turning the attention of the young agriculturist to a science, which is almost as necessary for a farmer, as a knowledge of arithmetic for a merchant or accountant. We will conclude this number with some reflections quoted from the celebrated "Letters of Agricola," which may perhaps suggest a new and useful train of thought to some of our readers.

"One is not able to contemplate the putrefactive process, and the uses it serves in the vegetable kingdom, without being struck with this admirable contrivance of Divine Wisdom to remove from our sight the putrid remains of animal and vegetable bodies, and change them into new and nutritious forms. The beauty of the universe would have been much marred, and our senses continually offended, without this expedient of putrefaction which sweeps away all trace of former organized beings, by converting them into pure and uncontaminated gases. These retain no tincture of their former corruption, and are ready to enter into new bodies invested with all the attributes of healthful, enlivening and agreeable existence. The vegetables cooked for our table, the butcher-meat under which it groans, are no other than new combinations of those putrid and nauseous steams, which, in the act of passing off, assailed our nostrils with ungrateful odours. The dunghill which the farmer carts to the neighbouring field, returns to him at harvest in the shape of useful roots or yellow sheaves, free from all polluted admixture, and refined from the dross in the laboratory of vegetation. I know no indication of greater skill in the Divine Intelligence, nor a more indubitable mark of his care and goodness, than this contrivance of resolving all dead animal and vegetable matter into elementary principles; that, in the first place, he might relieve the earth of such leathsome incumbrances, and in the next place, be supplied with fresh materials out of which to form and sustain the new and successive families of plants.—In a similar manner the excrementitious matter passing from man and all other animals is disposed off. In the form of manures, it is buried in the ground, which absorbs all its noxious effluvia; and in place of exciting in us revolting sensation, it becomes the most powerful restorative of our exhausted fields. There it is decomposed by the solvent powers of heat and water, and supplies abundance of nourishment to the grasses and corn vegetating over it."

(TO BE CONTINUED.)

A singular instance of Hydrophobia.—A boy about 11 years of age, whose name was Isaiah Kendrick, in going after the cows of Mr. Gregory Stone, of Lincoln, Mass. passed a pair of bars, in or near a piece of wood land, and saw a Racoon, which instantly flew at the lad, caught him by the thumb and held fast. The boy's cries were heard by Mr. Stone, who ran to his relief; but he was unable to rescue the boy from the jaws of the animal, till he drew his knife, and cut the throat of the racoon. In six weeks from that date, the boy was taken with madness, died on the 29th ult. and was buried on the 1st instant.—Communicated.

FARMER SUMMARY OF FOREIGN AND DOMESTIC EVENTS.

Lieutenant Commandant ALLEN of the United States' Navy has fallen in a contest with pirates. A letter from Havana, giving an account of his death, states that "This brave man fell in an action against the pirates on the 10th inst. in the Bay of Signapa, about 50 miles north of Matanzas, after a most desperate engagement, which terminated in the capture of the principal piratical vessel, a beautiful schooner of about 80 tons, mounting one long 18 pounder and four other guns, and the recapture of 5 American vessels. The Alligator [the vessel commanded by Capt. Allen] lost in the engagement two sailors killed, two mortally wounded, and three slightly wounded." Capt. Allen was buried at Matanzas, and every respect shown by the public authorities and inhabitants, which was suitable to the melancholy occasion.

The Prize of a Silver Cup, offered for the best poem, which might be composed on the occasion of opening a new building for a theatre at Philadelphia, has been awarded to Mr. CHARLES SINGAR of Boston, who was the successful competitor for the prize medal at the opening of the New-York theatre about 12 months since.

Northern Cotton.—Mr. William Ladlew, of Cyster Bay, (L. I.) has sent us a fine cotton plant, well stocked with full bolls, which are now opening in the reading room of the Commercial Advertiser.—N. Y. Spectator.

The Western Monitor, (a valuable newspaper printed at Lexington, Ken.) of the 12th ult. gives notice that a Mr. Thomas Pullin, of Bourbon County, has exhibited a newly invented machine for dressing hemp and flax, by which "the anticipations of the public were fully realized."

A London paper states that upon Mr. Rhodes' Estate, near Islington, the foundations are laying for the erection of two thousand seven hundred houses. Mr. Rhodes is one of the most extensive cow-keepers in the vicinity of London, and a very considerable portion of the metropolis is supplied with milk from his dairies. This is a great story, even if the houses are cow-houses, of small dimensions.

Chillicothe Twin Calves.—A Chillicothe paper tells of two twin Calves, a steer and an heifer, seven years old, owned by George Remick, Esq. of that neighborhood. The steer weighed alive, two thousand nine hundred & ninety-six pounds. The heifer is nearly as large as the steer, and is supposed by good judges to weigh within 200 pounds as much, but as she appeared somewhat wild, it was deemed unsafe to weigh her.

A machine for the dressing of cloth has lately been erected in Leeds, (Eng.) which, according to an English paper, does as much in forty-five minutes as two men could do in two days.

An English paper states, that, by the late population report, there are in England 57, in Wales 3, and in Scotland 40 men 100 years old and upwards.—Of women there are in England 111, in Wales 18, in Scotland 62, 100 years old and upwards. By a statement in the New-Hampshire Patriot, it appears that 75 persons have died within that State, since 1732, who had attained the age of 100 years and upwards; of these, one reached 120, another 116, and a third 115 years; and there are still living in that State the following persons who are more than 100 years of age, viz. Tryphena Stiles, of Somersworth, 101; Sarah Kelley of New-Hampton, 103; Mrs. Bailey, of Chesterfield, 101; Mary Barnard, of Amherst, 101; and Samuel Welch, of Bow, in his 113th year.

Fisheries of Lake Superior.—It is stated in the Detroit Gazette that fishing upon an extensive scale has commenced on Lake Superior, and that one man has already taken two hundred barrels.

A gentleman in Bennington, Vt. has raised a crop this season, on six rods of ground, for which he received 124 dollars and 68 cents, cash.

Caution.—Some of the notes of the Farmers' Exchange Bank, Gloucester, (R. I.) which failed some years ago, have been put in circulation in New York.

An Apprentices Library is about to be established at Portsmouth.

Two noted gamblers from New York, were lately convicted at Baltimore of keeping a gaming table, and fined \$380.

A numerous mission family, consisting of 18 persons, sailed from New Haven on the 20th Nov. for the Sandwich Islands.

An extensive quill manufactory has recently been established at Philadelphia.

A splendid eruption of Mount Versuvius occurred on the night of the 6th Sept. unaccompanied by earthquake.

On the 23rd Sept. William Haygate, Esq. merchant tailor, was elected Lord Mayor of the city of London.

Two men have been arrested in Fredericksburg, Va. for passing counterfeit money; upwards of \$6000 in spurious notes were found concealed in one of their trunks, and were remarkably well executed.

The number of under graduates at Yale College is 371—medical students 92—resident graduates 12—making a total of 461.

SELECTED FOR THE NEW ENGLAND FARMER.

RURAL SCENERY.

See where the farmer, with a master's eye,
 Surveys his little kingdom, and exults
 In sovereign independence. At a word,
 His feathery subjects in obedience flock
 Around his feeding hand, who in return
 Yield a delicious tribute to his board,
 And o'er his couch their downy plumage spread.
 The peacock here expands his gorgeous plumes,
 A glittering pageant to the mid-day sun :
 In the stiff awkwardness of foolish pride,
 The swelling turkey apes his stately step.
 And calls the bristling feathers round his head.
 There the loud herald of the morning struts
 Before his cackling dames, the passive slaves
 Of his promiscuous pleasure. O'er the pond,
 Behold the gander, and his female train,
 Bending their lofty necks ; and gabbling ducks,
 Rejoicing on the surface, clap their wings ;
 Whilst wheeling round, in airy wanton flights,
 The glossy pigeons chase their sportive loves,
 Or in soft cooings tell their amorous tales.
 Here stacks of hay ; there pyramids of corn,
 Promise the future market large supplies :
 While with an air of triumph he surveys
 His piles of wood, and laughs at winter's frown.
 In silent rumination, see the kine,
 Beneath the maple's shade, patiently wait
 To pour into his pails their milky stores.
 These his amusements, his employments these ;
 Which still arising in successive change,
 Give to each varied hour a new delight.
 Peace and contentment with their guardian wings
 Enclose his nightly slumbers. Rosy health,
 When the gay lark's sweet matin wakes the morn,
 Imprints her dewy footsteps round the field,
 And cheerfulness attends his closing day.
 No racking jealousy, nor sullen hate,
 Nor fear, nor envy, discompose his breast.
 His only enemies the prowling fox
 And haggard wolf, that thin the bleating fold ;
 The bristly porcupine, the cruel hawk,
 With eye malignant on the little brood
 Sailing around portentous.
 Th' amphibious otter bold ; the weasel sly,
 Pilfering the yolk from its enclosing shell ;
 And moles, a dirty undermining race.
 These are his foes, and these, alas, compar'd
 With man to man an inoffensive train.
 'Gainst these assisted by th' entangling net,
 Th' explosive thunder of the level'd tube,
 Or toils unwearied of his social friend,
 The faithful dog, he wages rural war,
 And health and pleasure in the sportive field
 Obtaining, he forgives their venial crimes.

Pigs in the character of Ministers of Justice.

An old English writer gives the following account of a signal instance of justice performed by pigs.—“ Certain pirates, who seem not well to have learned their business, since they were unable to swim, had landed on the coast of Tuscany, and carried off the swine from a farm. As the robbers were paddling off from the shore, their keeper returned and blew his horn, by which he had been accustomed to call his swine to their meals. At the well known sound, the grunters all started up, and crowding to one side of the boat, overturned it, and swam ashore to their keeper, leaving the unfortunate thieves to drown.

A HORRID SCENE OF CRUELTY.

The following is taken from *Lawrence's Treatise of Neat Cattle*. The author is an Englishman, whose works have been praised in British Reviews and quoted with approbation in British Cyclopedias, and other works of science. We do not give this relation by way of stigmatizing the lower orders of the English as peculiarly atrocious, nor by way of balancing the charges which some foreigners have exhibited against Americans, for not being so civil, humane, enlightened and highly polished as their brethren on the other side of the Atlantic. But we exhibit it by way of shewing what ferocious animals mankind are, when they can divest themselves of the restraints which religion and the regulations of society impose upon their passions and propensities.

“ I give place to the following anecdote, from a sense of duty, and by no means in a frame of mind, to treat the subject in a tender, still less in a ludicrous way. Far from thinking that the knowledge of flagrant acts of cruelty should be delicately hushed and suppressed, in my opinion, they cannot be proclaimed too loud, or disseminated too widely, for the purpose of raising a general abhorrence, exciting a due sense of shame, or imparting the needful information to those whom custom and prejudice hold in a contemptible and degrading state of ignorance. I dare trust myself with making few remarks ; indeed the bitterest language of execration would fall far short of what is due to the enormities of the tale to be told ; the senseless and beastly actors in which are, however, inferior in guilt to the cool, deliberate, and argumentative defenders of such infernal games. “ November the 5th, last, at Bury, a bull, naturally gentle ! which had in the morning, previous to baiting, been privately baited, and goaded with sharp instruments, in order to render him furious, though tied down with ropes, in his agony from being worried by dogs, and goaded by more inhuman dogs in human shapes, burst his ropes, to the terror of his tormentors, and the no small danger of the peace of the inhabitants : after this, the poor beast was doomed to be the victim of the still greater barbarity of fresh tortures—he was entangled again with ropes, and, horrible to relate, his hoofs were cut off, and he again baited while he had to defend himself on his mangled, bleeding stumps. The magistrates of Bury have repeatedly tried to prevent such infernal, demoniacal proceedings ; but the demons are sanctioned, it seems, by AN ACT OF PARLIAMENT ! Surely such an act is highly disgraceful to the age we live in, and to this country. Extracted from a magazine ; and sorry I am to observe, that no doubt need be made of its authenticity. Should this account chance to fall into the hands of actors in scenes like these, or into those of the still more guilty palliators of them (for hypocritical extenuation is infinitely the greater crime,) I beg of them seriously to reflect on the possibility of those tortures, which they have thus wantonly inflicted, although upon a poor and friendless beast, intruding upon their minds, when their own bodies may be racked and tortured with disease, perhaps on their death bed, and in their last agonized moments. Will they then think, that the infliction of torments upon one animal ought to convey pleasing and mirthful sensations to the breast of another ? ”

3000 persons are said to have attended an Oratorio at Philadelphia last week.

PATENT GRIDIRON.

New-York, 12th Nov. 1822.

To Mr. MUSSEY.

I willingly, sir, give you my opinion on your patent, economical utensil, the hollow-bar Gridiron, with a Reflector and a Dripping-Pan.

Broiling has been considered as the most saving, but at the same time the most wasteful way of cooking meat. Your invention removes in a great measure, from this operation, the charge of extravagance, by saving the fat and juice from destruction by the hot coals. The rays of heat, repelled from the bright surface of tin, add to it the valuable properties of the Dutch oven. Having satisfied myself by experiment that it is admirable in a saving manner, I recommend your gridiron and its appendage, as a piece of kitchen apparatus, to all house-keepers who are desirous of combining the luxury of eating with frugality in cooking.

SAMUEL MITCHELL.

N.B. The above Gridiron may be seen at this office, and orders received for them.

N. Y. Nat. Adv.

Rare Sport.—A Farmer who lived on the lakeshore, observing a bear crossing a bay was anxious to kill him. He ran to his skiff and without reflecting that he had no weapon but a paddle, worked his way to the bear, who immediately sprung into the skiff, and to the great terror and consternation of the farmer, very deliberately sat down on the bow. The Farmer after some reflection, determined to carry him back and attempted to turn the boat, but the bear made an advance to prevent him, and the boat, impelled by the wind having gained its first position the bear again very quietly took his seat on the bow. The farmer made a second and a third attempt with always the same result ; a perceiving that when the boat went the way the bear was swimming, he was quiet, he very prudently determined to reach the land in the same direction. He accordingly went on, and when he was within a few feet of the shore, the bear leaped out, to the great satisfaction of both himself and the ferryman.—*Western paper*

Franklin.—It is rather a curious incident that when the Americans sent Dr. Franklin, a printer, as Minister to France, the Court of Versailles sent M. Girard, a bookbinder, as Minister to Congress. When Dr. Franklin was told it, “ Well,” said he, “ I'll print the Independence of America, and M. Girard will bind it.

In the year 1776 a Bill was introduced in the British House of Commons, for the better watching of the Metropolis, in order to effect which object one of the clauses went to propose that watchmen should be *compelled* to sleep by day. Lord Nugent, with admirable humor, got up, and desired that he might be *personally* included in the provisions of the bill, being frequently so tormented with the gout as to be unable to sleep by day or by night.

To desire little makes poverty equal with riches. He who wants, is not rich ; nor he who wants not, poor.—Riches are not to be measured by their use ; I cannot call large possessions rich, but so much as is conducive to comfort.

NEW ENGLAND FARMER.

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VOL. I.

BOSTON, SATURDAY, DECEMBER 14, 1822.

No. 20.

From the National Aegis.

MINERALOGICAL.....No. IV.

In the estimate of the wealth of our country, the Anthracite, or as it is here improperly called the Black Lead, should not be omitted. As a combustible it resembles Coal in many circumstances of its character, and for many uses is preferable to that mineral. Altho' there is some difficulty in igniting it in the first instance, yet when the process of combustion is once commenced it goes on with rapidity. The heat which is produced is intense, and its production is unaccompanied with smoke. For the smelting of ores, for the conversion of Iron into steel, in the firing of Lime-stone; in distillation, and in those mechanical operations where the desiderum is a strong, durable, and continued heat, it may be employed with singular advantage. It has not here been used as fuel, but there is no doubt that it would succeed on experiment equally well, as the same substance in its application to this use, when dignified by the name of Rhode Island Coal. It is the opinion of a distinguished mineralogist that a broad vein of anthracite crosses this section of country passing from Rhode Island, thro' Worcester, into New Hampshire. It has here been converted into paint, which forms a cheap and durable covering for the roofs of buildings. In a region where the forests are daily receding before the eye of cultivation, it will become necessary to provide a substitute for the growth of the ancient wood. That this substance may become valuable for such a use, admits of little doubt.

Another individual closely associated with that to which we have alluded, is the Graphite deriving its appellation from the facilities it affords in the art of writing, but which has been equally unfortunate as its neighbour in receiving name. It forms the material of those crayons erroneously known, by the term, Black Lead pencils. These misnomers are of little consequence in themselves but are adverted to merely because correctness is preferable to error.

The Sulphate of Iron, the Cupperas of Commerce exists in many of the rocks of our country and is discoverable by *analysis* to be held in solution in some instances in the waters which read themselves over the surface of meadows. Altho' perhaps, in sufficient abundance to pre-
judice vegetation, yet it would not form an advantageous article of manufacture.

The Slate which appears upon the surface in numerous localities is quarried in but few. When the villages of the present day shall be built into towns, when the spires of the city shall take the place of the more modest habitations of the town, when a dense population shall be gathered upon the borders of the highways, they will furnish employment for industry and supply materials for building.

In the catalogue of those substances which are valuable to the Farmer, we have not included those which gratify the eye of the scientific observer only to ornament the shelves of the cabinet. Nor shall we trespass longer upon the patience, which we fear has already been so severely tried, by making such an enumeration.

Although there is much here to invite attention, we shall not delay to note the brilliancy of surfaces, the changing colors, the variety of form or the curious structure of those which belong to a stricter and more scientific survey. The crystals of Quartz, a mineral which pervades every region, here often tempt the unskilful, with the promise of countless treasures of diamonds, those who take all that glitters for gold, have often fancied that the lustre of the beautiful cubes of Sulphuret of Iron, was the splendor of a more valuable metal, and the exercise of a moderate warmth of imagination has converted the little plates of Mica, into spangles of Silver.

Although the promise that was given to shew the advantages of the study of Mineralogy, has been but inadequately performed, yet we trust it will have been seen that its cultivation is not of doubtful utility to the farmer. His daily toil is required for the daily necessities of a busy life. Yet there are many intervals of leisure which may be occupied in the acquisition of information, without prejudice to his more pressing, but not more important business. If the object of his labours is the acquisition of wealth, it were folly to overlook the course which leads most directly to it. To travel on, in the same path which our fathers have trod, without understanding whether it is the best, or knowing those roads which may be more easy and direct, discovers but little wisdom. Nothing is so inimical to the progress of improvement as ill-founded prejudices, hastily embraced but warmly defended. This inveterate attachment to old customs is lamentable, so far only as it discourages rash innovations. When it closes the ears, to propositions for experiments which are supported by reason and recommended by probability, it is illiberal and unworthy of men who are competent to think as well as act for themselves.—“To him that hath shall be given” is a maxim as true in science and agriculture as in morals. The more numerous are the principles which are learned, the more numerous will be the streams which will bring information to the mind, from its increased powers of observation and reflection. The greater the amount of knowledge, the greater will be the means of increasing property, by better methods of tillage, and by the superiority of management. If Marle exists it should not remain in its native beds when it might be employed in spreading fertility around in its vicinity. If the harvests have been blasted, let us seek out the causes of the evil, and take this first essential step towards its removal. If the Wheat and the Rye have not succeeded on our hills, let us ascertain what peculiar properties in our soils have been unfriendly to them. Let the owner of land, ask of himself, what are the qualities of the plain, or the meadow, what are the requisite and proper for the nourishment of the grass or the grain, and what applications are most suitable to restore its riches to the exhausted field? If these questions cannot be answered in a satisfactory manner, let him have recourse to those simple processes which are offered to him, by those who have employed their powers in these investigations. Who

would be ignorant of the elements of the profession in which he is occupied? Who would be liable to continual errors in practice and constant disappointment as their unavoidable consequence, when the want of those few principles which have occasioned them, might be so readily supplied. Few men are so destitute of curiosity, as to be intimate with objects around them for years, and never to feel an inclination to become acquainted with their names. And why should we be content to stumble over the rocks, that are strewn along our pathway, without even looking upon them and determining how far they may be valuable?

The great difficulty which has been encountered by those who have advanced far in the science of Mineralogy, is one which need not even be met by him, who does not purpose to fathom its depths and penetrate its secrets. The absence of an organic structure, of those fixed and certain marks which are the distinctions of other classes in the great family of Nature, have rendered it a matter of great nicety to determine the proper place of many individuals in the system of a strict arrangement. But where it is only required to know the appellations which should be given to a limited number of subjects, whose characters are well defined, which are obtruded upon the notice at every step, this objection is not applicable. He who has once attentively considered the appearance of a mineral, will not fail to recognize it again under any circumstances. The memory is so strongly impressed with the features of the friend who often comes before us, that we do not hesitate to annex his name to his face even among strangers. Yet it would be no easy task to describe his person, to another, so accurately as to enable him to fix upon him whom it may be intended to point out. This fact, for such it is, which gives the power of determining our acquaintance, is similar to the skill which ascertains at sight the specimens of the cabinet. When the first advance is made the greatest obstruction is overcome, and the subsequent progress is pleasant and easy.

Having so long plodded on, with sober matter of fact and experiment, we may be justified in wandering for a moment into the regions of speculation. In another number this communication will be concluded with some general observations on its subject.

From Sinclair's Code of Agriculture.

On Promoting the Collection and Diffusion of Useful Knowledge.

“It is a saying sanctioned by the authority of Bacon, that *“knowledge is power.”* Of all the various sorts of power, enumerated by that great philosopher, this seems by far the most important. What gives one man any real superiority over another, but the knowledge he possesses? What enables some individuals, to produce abundant harvests,—to carry on a prosperous commerce,—to establish successful manufactures,—to excel in mechanism, or any other useful art, but the acquisition, and judicious application of that knowledge, in which others are deficient?

"That the power and prosperity of a country, depend on the diffusion of useful knowledge, can hardly be questioned; and there is probably, no art, in which a variety of knowledge, is of more essential importance, than in that of agriculture. The extent of information necessary to bring it to any thing like perfection, is far greater than is generally supposed. To preserve the fertility of the soil;—to free it from superfluous moisture;—to cultivate it to the greatest advantage;—to raise its productions at the least expense;—to procure the best instruments of husbandry;—to select the stock likely to be the most profitable;—to feed them in the most judicious manner, and to bring them to the most advantageous markets;—to secure the harvest, even in the most unpropitious seasons;—to separate the grain from the straw with economy and success;—and to perform all the other operations of agriculture in the most judicious modes, require a greater extent, and variety of knowledge, than might, at first view, be judged requisite.

"But though a general knowledge of agriculture, may be diffused over a great country, it is found by experience, that it cannot be materially improved, unless by comparing the various practices which subsist, in different parts of the same kingdom. One district has been led, to pay a peculiar and successful attention, to one branch of husbandry, or by a fortunate accident, some important discovery has been made in it, while other districts excel in other particulars of equal importance."

EXPERIMENTAL FARMS.

"The art of agriculture, can never be brought to its highest degree of perfection, or established on rational and unerring principles, unless by means of experiments, accurately tried and properly persevered in. The ardent inquirer has too long been obliged, to rely on vague opinions, assertions which have not been warranted by sufficient authority; it is full time, therefore, by the establishment of experimental farms under the sanction, and at the expense of government, or by enabling the Board of Agriculture to grant adequate premiums to deserving persons, for new discoveries, to bring the art to as great perfection as possible, by ascertaining the principles on which it ought to be conducted.

"It is alleged, that there are many distinguished characters, who carry on experiments for their own information and amusement, by means of which, every important fact, will in process of time be ascertained; and it cannot be doubted, that their example is of very great advantage to those, who have the means of examining the progress that is made. Their farms, however, are more properly speaking, *pattern farms*, for the advantage of the farmers in their immediate neighborhood, than experimental ones, in the strict sense of the word; and they are too often, rather the partial records of successful experiments, than the faithful journals of success and of disappointment. In order to render experimental farms generally useful, they ought to be open to the inspection of the public; the account of each experiment ought to be regularly published, and every new practice, likely to improve the cultivation of any considerable part of the kingdom, ought to be examined with the utmost precision, every trial repeated for confirmation, and, if possible, made by different

persons, in different places, and on different soils.

"It cannot be expected, that persons of high rank, whose attention is necessarily directed to other objects, should renounce their ordinary pursuits, and devote themselves exclusively to the conducting of agricultural experiments; but if one or more experimental farms were established, under a proper system, it would ere long be discovered, what practices ought to be avoided, as well as what ought to be pursued. It is important, that the one should be made known as well as the other; yet *errors in husbandry*, are seldom communicated to the public, or known beyond the sphere of a confined neighborhood, because a farmer is in general ashamed of acknowledging his want of success. Unfortunately also, when his experiments answer, they are sometimes concealed, lest others should avail themselves of the discovery. The object of an experimental farm, however, should be to ascertain facts, *and to publish them*; and as much credit would be acquired, by an intelligent conductor of an experimental farm, for his exertions in detecting errors, as in establishing facts likely to be useful."—*ibid.*

FIRST VIRGINIA CATTLE SHOW.

The American Farmer of the 6th inst. contains an account of the proceedings of the Fredericksburg Agricultural Society at a meeting held on the 13th and 14th of November; and of the Cattle Show exhibited on this occasion; which it appears was the first which has been exhibited in Virginia. At this meeting, resolves were passed, approving of the proposition of the Albemarle Society for the establishment of an Agricultural Professorship at the University of Virginia—for presenting the thanks of the meeting to J. S. Skinner, Esq. editor of the American Farmer, "for the many instances of polite attention to the interests and wishes of the Society, which we have experienced at his hands, and for his meritorious labors in the cause of agriculture generally," and approving of the "elegant workmanship displayed on the premium plates awarded by the society; and, that the artist, Mr. Warner, of Baltimore, be respectfully recommended to the patronage of our sister societies."

Among the premiums awarded were a silver pitcher with emblematic device and description, cost \$33, to Mr. Ira Lipscomb, for a fine stallion; a silver pitcher, which cost \$28 to Col. George Love for his bull Pluto, besides a silver cream cup and several silver mugs to several individuals for fine animals of different kinds. Likewise a silver mug, value \$15, to Mr. McCormish for the best plough; and also a discretionary premium of \$5, for an Angular Balance, by which to ascertain the force necessary to move a plough. Among the articles exhibited were Pine-Apple Cheeses, a Wheat Fan, two Cutting Boxes, a Drill Plough for planting corn, a beautiful Counterpane, &c.

The mode of trying ploughs by a force equal to a certain number of pounds weight, has not,

so far as we know, been adopted in New-England. We therefore give that part of the account entire as it may perhaps suggest useful ideas to some of our agriculturists.

"Of the Ploughs, there were only three tried; McCormick's, Wood's or Freeborn's, and Cochran's. The committee here subjoin the calculations, and leave it to the public to decide.

M'CORMICK'S.

	Width of Furrows.	Depth.	Force.
1st trial	16 inches	7 inches	30
2d do	14	8½	30
3d do	15½	7	30
4th do	14	7½	30

FREEBORN'S.

	Width of Furrows.	Depth.	Force.
1st trial	15 inches	5½	30
2d do	15	5½	30
3d do	13	5½	30
4th do	15	5½	35
5th do	14	4½	35
6th do	13	6	35

COCHRAN'S.

	Width of Furrows.	Depth.	Force.
1st trial	12	5½	30
2d do	11	5½	30
3d do	11	5	30
4th do	11	4	34

"But the most singular exhibition of all, and one that caused general amusement, was the spectacle of two little goats completely harnessed and attached to a cart, in which sat the driver, a man weighing nearly 200 pounds, who coursed his proud looking little steeds about with much apparent ease and security. They were perfectly tractable and true to the draft. This equipage, although intended by the worthy proprietor merely for amusement, conveyed a good practical lesson to husbandmen. It showed in a striking manner, what things may be accomplished with our domestic animals by a proper course of education."

The second day the following toasts were given:

1. *The Day we celebrate*—May each return to it invigorate our zeal, and augment our professional knowledge.
2. *Our soil and our Intellects*—We must give better culture to both, or the first will soon change masters.
3. *Free Exports and Imports*—The best security for regular demand and supply.
4. *The Congress of the United States*—Would they give Agriculture more of their works, and less of their faith; Agriculture would give them more of her money, and less of her complaints.
5. *Fair, free Trade and Universal Commerce*—The best pioneers, for liberty, knowledge, and universal good government.
6. *Prohibitory Duties, and the self-flagellation of Sancho Panza*, plants from the same nursery—A fool's cap, with ass's ears, is due to the inventors of both.
7. *Moderate and competent profits to all, except extravagant ones to none.*
8. *Steady and regular prices to every occupation*, the healthful trade-winds of national prosperity; exorbitant gain, the tornadoes that ruin them all.
9. *Our Plough-shares and our Swords*—May the first never be last, nor the last first.
10. *Speed to our Ploughs; industry, skill and honesty to their drivers; and a prudent enlightened economy to the owners of the soil.*

11. *Banks*—The most appropriate ones for agriculture, are those erected by the Spade.
 12. *The Land and the Ocean*—The value of the first, much depends on the free use of the last.
 13. *The Matrons and Maidens of Confederated America*—Our last toast, but the first objects of esteem and affection.

An Address was given by Mr. Garnett, which we propose to republish in a future number.

A writer in the American Farmer with the signature "Hugh Hartshorn," says, "It is generally known, it may be useful to mention a very easy and excellent method of making butter, in winter, or in cold weather, late in the fall. We began it last fall, and have practiced since with uniform success. It consists simply in heating the cream, instead of souring it, in the usual troublesome and tedious manner. The cream, as it is skimmed, is put into a vessel, un-
 enough is collected for churning, and kept in any convenient place where it will not freeze. It is then poured into a copper or brass kettle and hung over the fire until scalding hot, but is not suffered to boil—it is then poured back again into the cream pot, and left to stand till evening, at which time it will be nearly cool, rather colder than new milk; it is then churned, and thus, has never failed to produce good butter in a very short time; and of a better quality and color than when soured in the usual way. Indeed it is scarcely any more trouble to make butter in this way in winter, than in the usual mode in summer. Care, however, must be taken that the fire be not too strong, as, if the cream should be in the least burnt, it will give the butter an unpleasant taste."

The making of butter from scalded cream has long been practiced in England. (See No. 2, page 12 of the N. E. Farmer.) Mixing one quart of boiling water with every eight quarts of milk, as recommended in Hunter's Geographical Essays, (see No. 16, page 123) would probably facilitate churning as well as deprive the milk of any disagreeable taste resulting from the cows having been fed on turnips. But when brass or copper vessels are used for scalding milk or cream, care must be taken to keep them perfectly clean, and not to scald sour milk or cream in them, nor even to let sweet milk or cream stand in them to cool, lest the acids become in some degree impregnated with ver-
 grease, which they acquire from the metal. Sweet milk or cream, while hot will have no effect on brass or copper, but when cool, will corrode [oxidize] those metals, and become more or less poisonous. Milk and cream when sour, either cold or hot, will corrode brass or copper vessels, and become more or less poisonous.—

Ed. N. E. Farmer.

From the Farmers' Weekly Messenger.

A WORD TO A THINKING FARMER.

A common sap, wooden hooped cider barrel costs 33 cents, and by hooping it once, (which will cost 40 cents) it will last four years; after which it is generally unfit to put liquor in. A white oak, iron bound hogshead can be had new, heart stuff, well painted, to hold about three barrels and a half, for \$5.—This will require to be smeared over with some kind of refuse oil, with a little Spanish brown and lamp black in it, once in three years, (which may be done at some leisure time, such as a rainy day,) and it will then last a man's life time. I am told that there are people in the state of Maine who

have had casks of this description in their possession, in constant use, for upwards of fifty years, which now appear as good as new.—Heart stuff barrels are to be found in every part of our country from twenty to thirty years old, which have never been painted at all. Is it not truly surprising, when these facts are so well known, that any farmer should purchase sap barrels to put liquor in, at any price? From the best information which I am able to get I believe it will be found that the expense of keeping casks to keep twenty barrels of cider in, will be one year with another, reckoning every expense, nearly as follows:

To keeping twenty barrels of cider in barrels with wooden hoops,	\$8,50
To ditto ditto in heart stuff barrels with wood hoops and not painted,	4,50
To ditto ditto in heart stuff barrels with iron hoops, painted,	3,00
To ditto ditto with iron bound hogsheads, painted,	2,50

When it is considered that cider is so much better by being kept in hogsheads than in barrels, it is evidently much cheaper to keep cider in hogsheads than in sap barrels, at even a quarter their present cost.

It is true large timber is becoming an article of so much importance that hogshead staves are in many places very difficult to be got; but staves of heart stuff that will make casks which will hold sixty gallons can be had almost any where: and I should think that the most incredulous person will find by inquiry that iron bound casks with thick staves, to hold as much as he can well get them, if they are kept well housed and painted, will produce a clear saving of from two to four hundred per cent. Many of our heart stuff casks are, however, very poor, owing to the staves being so thin. The rum hogsheads we get of merchants are often risky to purchase, as there are generally some sap staves in most hogsheads, and they are often injured by being strained at sea. If farmers can save twenty or even ten per cent. in any branch of husbandry, they ought to be attentive to it; for in agriculture, as well as in religion, "he that disregardeth small things shall fall by little and little."
 A.

From the New York Statesman.

THE TREADING MILL.

We have visited this new, and we doubt not powerful machine, in the reformation of vice, and prevention as well as punishment of crime. It is erected in a building provided for the purpose, at the Penitentiary establishment, and consists of two long wheels, turning like a squirrel's rolling cage, only that the weight is applied outside instead of inside of the bar or steps. Each wheel is long enough for sixteen persons to stand upon it together, supported by a hand-rail, shifting their feet with short and quick steps, to prevent being without support by the foothold rolling inwards from under them. A screen separates the two wheels, each of which, interlocked by ordinary machinery with each other, is moved by the weight or specific gravity of 16 persons, and the whole force applied, in an adjoining apartment, to the movement of two pair of mill-stones, which grind the usual quantity produced by the amount of power.—Each wheel is attended by thirty-two persons (one by males and the other by females) one

half of whom are employed in exercise or labor, while the others are at rest; at the sound of a bell, striking about once each half minute, the person at one end of the wheel stepping off, the remainder moving down, and another stepping on at the head. Thus each person is employed eight hours a day, alternately in exercise and rest, eight minutes at each interval, from eight in the morning to four in the afternoon. The effect of this discipline, it is believed, will be of the most salutary and unequivocal nature. Although the employment at first appears light and easy, it is already found by experience, probably from its unremitted regularity, in itself the dread of the idle and profligate, to have a serious and lasting effect on its subjects. The prisoners are daily complaining of indisposition or fatigue, and taken from the wheels by direction of the physician. A register is kept of their services; and but very few, if any, it is confidently expected, after being once discharged from this cage, will merit a return to the Treading Mill.

A SHORT STORY.

As told by Mr. Matthews, the Comedian.

"My friend and myself, when in Devonshire, were visiting an acquaintance, who had a daughter not remarkable either for her wit, beauty, or accomplishments. She had passed the grand climacteric, and was certainly on the wane; her heart had lost none of its susceptibility to *le grand passion*. She had for ten years been conspicuous for her dress, airs, and "beautechiers;" but alas! she had toiled all night at balls, routs, and levees, but had caught no beau. Being as vain as she was simple, we thought her fair game for a quiz. Miss Lucretia Elvira, said I, have you heard of the late act of parliament, by which all ladies with *small mouths* shall be allowed to marry two husbands? "No, Sir, said she, (SCREWING UP HER MOUTH INTO A PUCKER)—what a *curis* law!" You are wrong, Edward, said my friend to me; those ladies with *large mouths* are to be allowed two husbands. "LAW ME!" exclaimed she, (opening her mouth as *big as a bucket*;) "what a *cu-ri-ous* law!"

MISERIES OF EDITORS.

The following catalogue of editorial grievances is from the new editor of the Nantucket Inquirer:

"We are often-times forced to unravel hieroglyphics, that would puzzle an Egyptian necromancer;—to decypher *chirography* which is more like *cryptography*, and resembles a Mosaic MS. rather than any post-diluvian production;—to transpose the idioms of all languages into that of our mother tongue, as well as we know how;—to affix *punctuation* to things that came to us without *point* or *character*. We have *prose* to translate, wherein the first letter of every line is an obstinate Capital;—and *poetry* to measure and *versify*, in which the capitals stand up in thick array, like scare-crows in a pea-patch, or 'sheep's bones round a parsley bed.'"

A man of an agreeable and merry disposition, but very poor, finding one night, some thieves in his house, told them, without putting himself in a passion, I cannot imagine what you expect to find in my house in the night, when I can find nothing in it in the day time.

Although we believe the following was dictated by honorable feelings, and that the writer in originating the production was merely solicitous that honor should be given where honor is due, we cannot think that there was any *intention* in the gentlemen who made and drank the toast, which it seems has given offence, to wound any person's feelings, or to overlook the merits of the Berkshire Agricultural Society. In a moment of conviviality, it cannot be expected that the scale of justice will always be held with a *steady* hand, and if merit should happen to kick the beam it should be overlooked as an occurrence, which if not justified, is perhaps palliated by circumstances. We do not perceive that the Hon. Mr. Welles's reply, and the toast he gave in answer to that of the Worcester gentlemen can in any degree implicate him. Common civility required a reply, and it would hardly have been proper for Mr. Welles to have said that the compliment contained in the toast was misapplied. Still, as we said before, we appreciate the motives of our respected correspondent, and, perhaps our views of the subject are incorrect—besides *non est nobis tantas componere lites*. It does not belong to us to settle the dispute—but we wish it settled.

TO THE EDITOR OF THE NEW ENGLAND FARMER.

We have taken pleasure in reading the details of the proceedings of Agricultural Societies the past season in your valuable paper. The proceedings of the Worcester County Agricultural Society have attracted our attention. We rejoice at the successful efforts and displays of this Society, and we admire their zeal in this greatest and best of all causes. We are not disposed to abridge them of the pleasure of general admiration, nor debar them of courting the approbation of other Societies, if not done at the expence of truth and justice. We however cannot greatly profess ourselves to admire or approve of the following toast, given on that occasion, and echoed by a member of the Massachusetts Society.

"The Massachusetts Agricultural Society—The soul which animated 'the Heart,' and which is infusing life into the extremities of the Commonwealth."

If we were to remain silent on this occasion, it would be construed into an high degree of insensibility and want of attention to the well founded fame of another Society in this State, to which the sentiment of the toast could apply with truth and without cause of offence. That the Worcester Society should have courted a compliment, at this very recent state of its existence, is no subject of wonder, but that the Hon. Mr. Welles, who became the organ of the compliment, and was a Trustee of the Massachusetts Society, should have forgotten the honorable distinction heretofore awarded to the Berkshire Association, and placed on their annals, is indeed a wonder.

It is not our object to provoke any collision or inauspicious rivalries among citizens and societies devoted to the same great and useful pursuits—nor are we in the least disposed to detract from the distinguished merits and valuable efforts which characterize the Massachusetts Agricultural Society. But we are disposed to think, that exact and equal justice to men in all their relations to society is the most honorable and useful course, and the least liable to produce dissatisfaction and opposition. The truth is, much caution and delicacy is requisite to conciliate good feelings among Societies which are much excited, and by whom great ardor is

displayed in the pursuit. On this subject we quote the sage and timely counsels of the venerable President Adams, formerly President of the Massachusetts Society, in a letter of August 11, 1812, to a friend in Berkshire. "You may depend upon it, your Berkshire Agricultural Society, and our Massachusetts Society for Promoting Agriculture will assuredly quarrel and go to war unless both are managed with great prudence, delicacy, caution and circumspection. *Sat verbum*. How is it, that agriculture and commerce are rivals in France, England, Holland? and what tremendous consequences have resulted from those rivalries, the history of mankind will shew." Whenever the Massachusetts Society, or any other Society for her, shall assume the merit of being "the soul which animates, the heart which is infusing life into the extremities of the state,"—the Berkshire Society will interpose her veto to that assumption, founded on the following facts. What was the state of the Massachusetts Society previous to 1811, when the Berkshire Association commenced its successful career? Had that Society infused any life or animation in the promotion of agriculture in its immediate sphere of action, much less to the distant extremities of the State, sufficient to divest themselves of the proffered annual premiums? Previous to the existence of the Berkshire Association, was the Massachusetts Society of *any practical utility*? And what were the fruits of a band of Patriots, who from the best of motives sustained their measures, previous to 1816, when they held their first exhibition at Brighton, *following the footsteps of the Berkshire Society*, other than the production of an annual volume on agriculture, which was little known and less regarded?—That this question may be settled forever, and we charitably hope satisfactorily, we will appeal to the best authority, that of the Massachusetts Society. What the effects of the example and efforts of the Berkshire Society subsequent to 1815, not only on this State, but the Nation, were, we do appeal triumphantly to the following extract from the address of the Hon. John Lowell, at the first exhibition at Brighton, in 1816:—"The Berkshire Society, though comparatively in its infancy, and restricted in its means, had with a vigor and intelligence which did it the highest credit, taken the lead in establishing exhibitions of this nature, which has been productive of great emulation, of improvements in agriculture." "It is our pride to acknowledge that we follow the footsteps of a younger Society, thus evincing that we are ready freely to acknowledge merit, wherever it may be found."

Upon this evidence we rest the decision, whether the reverse of the toast is not the truth—that the Berkshire Association was *the soul which animated, and the heart which infused life not only into the Massachusetts Society, but the State and Nation*. Anxious to be useful, to be the channel for diffusing the richest blessing to our country, the Berkshire Society pursue their objects with unabated diligence, and only desire that New England, nor the United States will ever permit themselves to forget *the origin of a system*, which has produced to general and increasing good. To our friends in Worcester, and every where, we would say, that the high spirit and conscious dignity of Berkshire, will never suffer to pass unnoticed any attempts to

detract from their just and well sustained claim at originality and usefulness in their agricultural system.

A Member of the Berkshire Agricultural Society

FACTS AND OBSERVATIONS RELATING TO AGRICULTURE & DOMESTIC ECONOMY

FOR THE NEW ENGLAND FARMER.

SAGACIOUS BREED OF CATTLE.

In the Hottentot districts of the Cape of Good Hope the natives not only use their bison-oxen which are of good size, for the saddle and draught, but train them to war. These cattle being assembled in troops, with a Hottentot army, on a given signal, rush upon the enemy with great fury, goring with their horns, trampling with their feet, and overturning every obstacle which opposes them. Individuals of them are also set to watch the flocks and herds, in the manner of shepherd's dogs, which they faithfully perform like the dog, distinguishing friend from enemies, caressing the former, and attacking the latter with the utmost rage.

A RACE-OX; AND NEAT CATTLE FOR THE SADDLE.

Some years ago a Sussex [English] ox ran four miles over Lewis' Course, for a hundred guineas, which he performed after the rate of fifteen miles per hour.—In India, *travelling oxen* are curried, clothed, and attended with a much solicitude, and much greater kindness than we bestow on our best horses. The Indian cattle are extremely docile, and quick of perception, patient and kind; like the horse their chief travelling gait is a trot, and it is said they often perform journeys of sixty successive days, at the rate of thirty to forty-five miles a day.

IMPROVEMENT IN THE BREED OF CATTLE.

The formation of an entire new breed, in the establishment of a permanent variety is a matter requiring the most diligent attention, through a long course. For that reason it is commonly the shortest and safest method to part entirely with an inferior stock, or such as requires much amendment, and to replace with a species the nearest to perfection even at a high price.

The following remarks on the subject are from Messrs. Wells & Lilly's edition of Deane's New England Farmer, under the article "BULL."

"It was formerly believed that a frequent change of animals, from one country, or one section of a country, to another, was indispensable to the preservation of a pure and excellent breed of cattle, but this idea is almost exploded. Bakewell, Princeps, and other noted graziers and raisers of stock in England have proved, that it is by careful selection of individuals of good forms and properties, that a race of cattle can be best improved. The system of 'breeding in and in,' which confines the improved races or animals to their own families, is now much more in fashion, and the success of the British graziers, and the best experience of our own country seem to justify the opinion. Importations of the best animals of Great Britain have been made, it is true, and they have essentially and manifestly improved our stock. But this does not disprove the utility of 'breeding in and in,' because these excellent imported animals were produced, and brought to their present perfection by the principle of selection from

the same excellent stock. And when imported here, the principle of "breeding in and in," or preserving the stock has been scrupulously adhered to, with highly beneficial effects.

"Before we quit this article, it may be adduced as a proof of the soundness of the modern doctrine, as opposed to the old practice of *crossing* the breeds constantly, that, as to horses, the interest in which is much greater in some countries on account of the rage for the pleasures of the chace and of the turf, it is an established law, that the race should be kept pure, and the pedigree of a race-horse is as accurately preserved as that of a line of kings."

It appears that the pedigrees of certain breeds of cattle have been preserved in Great Britain of late years with all possible care, and the same practice is not without precedent in the United States. See No. 17—page 134 of the New England Farmer.

COWS SHOULD NOT BE EXHAUSTED BY MILKING.

The cow which is desired to remain in perfection, either for milking or breeding, should not be exhausted by drawing her milk too long after she becomes heavy with calf, it is to pay too dear for a present supply of milk. She should be suffered to go dry, at least, two months before calving.

ON THE IMPORTANCE OF PROCURING A GOOD BREED OF COWS.

The expense of keeping cows of a poor breed is as great and sometimes greater than that of keeping the best. If cows are poorly kept, the difference in breeds will scarcely be discernible by the product in milk. Some have, therefore, supposed that it is the food alone, which makes the odds in the quantity and quality of milk.—This supposition is very incorrect, as may be evinced by feeding two cows of a similar age, size, &c. on the same food, the one of a good breed for milk, and the other of a different kind, and observing the difference in the milk product. No farmer unless he is very rich can afford to keep poor milch cows. He might almost as well keep a breed of "naked sheep," such as Swift tells of in his *Gulliver's Travels*. The farmer who raises a heifer calf, that is from a poor milker, of a bad or mongrel breed, is as foolish as he would be, if in clearing land he should burn on the ground the birch, maple and walnut, and save white pine and hemlock for fire wood. And yet many farmers sell the heifer calves of the best milch cows to the butchers, because they are the fattest. Such folks deserve to be poor, and may expect to meet with their deserts.

COWS WHICH GIVE THE GREATEST QUANTITY OF THIN MILK, THE MOST PROPER FOR SUCKLING CALVES.

Those cows which give the greatest quantity of milk are the most profitable for suckling calves, for rich milk is said to be not so proper food for calves as milk which is less valuable for dairy purposes. Milk which contains a large proportion of cream is apt to clog the stomachs of calves; obstruction puts a stop to their thriving, and sometimes proves fatal. For this reason it is best that calves should be fed with the milk which first comes from the cow, which is not so rich as that which is last drawn.

DIFFERENCE IN THE MILK OF COWS.

Dr. Anderson relates that a friend of his, who

kept only a single cow for the use of his own family, bought one from a person who kept from fifteen to twenty cows, chiefly for the purpose of rearing calves, but in part for the dairy. This cow was recommended as one, which gave a large quantity of milk for her size, and her milk was said to be of an excellent quality.—This last was a circumstance of great consequence to the gentleman, who proposed to buy the cow, who therefore took care to taste the milk and found it to be apparently very good. But although the milk was thick and rich to the taste *it never could be brought to yield an atom of butter*, though every method, which could be devised, was tried for that purpose. This cow had given milk for three seasons before she was sold, without its having been discovered that her milk did not give as much butter as that of any other cow. This experiment proves that there may be individual cows which yield milk of qualities different from that which the eye and the taste would seem to indicate. It would therefore be well for every person, who wishes to superintend a dairy with a proper attention to economy, always to ascertain the qualities of the milk of every cow individually, as soon as she is turned into the dairy; otherwise he may proceed for years without knowing that he is subjecting himself to a great expence without deriving any advantage from it. It may likewise happen, that from casual disease, or other circumstances the milk of the cow may become tainted at a particular time with a peculiar taste or other quality, which may greatly injure the whole stock if it be mixed with it, and occasion loss to the owner. It is, therefore, recommended, as an invariable practice in every dairy, to keep each cow's milk separate, on the first day of the month, at least, throughout the year, for the purpose of ascertaining the quantity and quality of the milk yielded by every cow individually. Were this practice strictly adhered to, it would advance the practical knowledge of the dairy more in the space of one year, than can be done in the random mode usually adopted in a century.

CALVES SHOULD HAVE ROOM, LIGHT AND AIR.

An English writer of high authority, says "I have heard and read much of calf-coops for calves which were fattening, where the animals had no room for turning themselves, and where the light is excluded; but I have no conception of the necessity of such measures in order to make good veal. I have made, with despatch, as good and as fat veal, as Leadenhall market can exhibit, in common pens without the smallest obligation to any of the aforesaid extraordinary precautions, which, in truth, I disapprove, as equally probable to induce disease as to accelerate the fattening of calves." It has been recommended to cram hogs and poultry also in dark and confined places without allowing the poor animals either light, fresh air, or exercise. But these should seem requisite for health in the animals, and the meat of unhealthy ones would not seem to be a very wholesome article of diet.

REMEDY FOR POISON BY THE OXIDES* OF LEAD OR COPPER.

As the oxides of lead are poisonous, when ta-

ken into the stomach, it ought to be generally known that these oxides, even in a state of solution, as well as the oxides of copper, may be rendered innoxious, by the exhibition of a large dose of common sugar, or sirup.—See *Dr. Ure's Chemical Dictionary*.

WINE TESTS, OR METHODS OF ASCERTAINING WHETHER THERE BE ANY LEAD IN WINE OR CIDER.

We are told that fraudulent wine merchants have sweetened their wines and ciders by the addition of lead. Dr. Watson relates that it was at one time a common practice at Paris. He directs how it may be detected—*Chemical Essays*, vol. III. page 369. Methods of detecting this and other adulterations of wine may also be seen in Dr. Willich's *Lectures on Diet and Regimen*, pages 357 to 362. The following is easy of application, and will be found effectual: Equal parts of oyster shells and sulphur may be heated together, kept in a white heat for 15 minutes, and when cold, mixed with an equal quantity of cream of tartar: These are put into a strong bottle with common water to boil for an hour; and then decanted into ounce phials, adding 20 drops of muriatic acid to each. This liquor precipitates the least quantity of lead, copper, &c. from wines, in a very sensible black precipitate. As iron might accidentally be contained in the same wine, the muriatic acid is added to prevent its precipitation, and its being mistaken for the precipitate of lead.

FARMER'S ACCOUNTS.

Regular accounts, says a celebrated agriculturist, are not so common among farmers as they ought to be, and in this respect, persons employed in other professions, are much more attentive and correct. The accounts of a farmer, occupying even a large estate, and consequently employing a great capital, are seldom deemed of sufficient importance to merit a share of attention, equal to that bestowed by a tradesman, on a concern of not one twentieth part of the value. There is certainly some difficulty in keeping accurate accounts respecting the profit and loss of so uncertain and complicated a business as the one carried on by a farmer, which depends so much on the weather, the state of markets, and other circumstances not under his control; but the great bulk of farming transactions is settled at the moment, that is to say, the article is delivered, and the money at once paid; so that little more is necessary than to record these properly. In regard to expenses laid out on the farm, an accurate account of them is perfectly practicable, and ought to be kept by every prudent and industrious farmer.

The advantage to be derived from regular accounts, cannot be doubted. By examining them, a farmer is enabled to ascertain the nature and the extent of the expense he has incurred, in the various operations of agriculture; and to discover what particular measures, or what general system contributes to profit, or occasions loss. The principle of *economy* may thus be introduced into the management of a farm; and the lessening of expense effected, which is every day becoming of greater importance, bearing a higher proportion to the produce of the farm.

* An oxide is a metal combined with oxygen [vital air] extracted either from the atmosphere [when it is called *rust*] or from some acid substance, such as vinegar, sour milk, cider, wine, &c.

In order to facilitate the adoption of so useful a plan as the keeping of regular accounts, it would be of use that not only memorandum books, for the transactions of the day, but account books were properly arranged, and divided into columns, containing every head, which experience in the business of farming may suggest, together with a broader column for general observations. The accounts of gentlemen farmers, or of the bailiffs they employ cannot be too minute; but in regard to common farmers, the great objects are to have them short and distinct.

It is proper to add that to record pecuniary transactions is not the only object to be attended to in the accounts of a farmer. It is necessary to have an annual account of the live stock, and of their value at the time; of the quantity of hay consumed; of the grain in store, or in the stack yard; and of the implements and other articles in which the capital is invested. An account detailing the expense and return of each field, according to its productive contents is likewise essential, without which it is impossible to calculate the advantages of different rotations; the most beneficial mode of managing the farm; or the improvements of which it is susceptible.

FOR THE NEW ENGLAND FARMER.

Mr. Editor—I have for several years past, and more frequently of late on the margin of the Blue Hills and in other retired spots, had the gratification to observe a bird of most beautiful plumage, which, though coy and disposed to solitude, I sufficiently noted to find very distinctly described in the admirable work of our countryman, "Wilson's Ornithology." This description I have abridged and now send you for publication. Tho' your paper is very properly and usefully devoted to agriculture—yet whatever gives a splendor to the scenery of the country and is not *merely* harmless, but useful to the cultivator of the soil—cannot be said to be out of place in your pages. It will be perceived that this showy stranger, which is induced more and more to visit us of late, mostly feeds upon the large winged and most noxious and injurious insects. If, however, this bird, so modest and sweetly attired, is not kindly received, we shall lose the visits with which he gratifies us. Why not place him with the Swallow, the Turtle Dove, and other favored harmless birds, who in fond reliance cluster about our houses? But above all, let those who deal out leaden death, consider that as this sweet bird of both song and plumage affords no inducement as game or luxury for food—whether it does not belong to their spirit and gallantry to spare as they wish to be thought its admirers, *innocence and beauty*.

THE SCARLET Tanager.

This is one of the most shewy birds which regularly visits us from the south in the spring of the year, dressed in the richest scarlet, and set off with the most jetty black. He rarely approaches the habitations of man, though he sometimes is seen in the orchards in search of food. The depth of the woods is his favorite abode, where, amongst the thick foliage, his simple notes may be heard, which appear to proceed from a distance, though the bird should be near to you; a faculty no doubt intended by the kind Author of nature to secure him from the danger to which his glowing color would expose him. His nest is slightly built on the horizontal branch of a tree; the eggs are three, of a pale blue color, spotted with brown and purple; they rarely raise more than one brood in a season, and leave us for the south in the last of August. His principal food is large winged insects, such as wasps, hornets, and humble bees, and fruit, particularly the whortleberry,

which in their season form almost his whole fare. The male of this species is rather less than the robin; its plumage a most brilliant scarlet, except the wings and tail, which are of a deep black; the bill curved and of a yellowish color; the legs and feet light blue. The female is green above, and yellow below; the wings and tail a brownish black, edged with green. The young birds, during their residence here, continue nearly of the same color with the female.

Amongst all the birds which inhabit our woods, there is none that strikes the eye with so much brilliancy, when seen among the green leaves with the light falling strongly on his plumage, as this does. His manners are modest and inoffensive. He commits no depredations on the property of the husbandman, but rather benefits him by the daily destruction of many noxious insects; and when winter approaches he seeks in a distant country the sustenance which the severity of the season denies to his industry in this. He is a striking ornament to our rural scenery, and none of the meanest of its songsters.

Such being the true traits of his character, we should always with pleasure give a safe reception and welcome to this beautiful inoffensive stranger in our orchards, groves and forests.

THE FARMER.

BOSTON:—SATURDAY, DEC. 14, 1822.

ON LAYING DOWN LAND TO GRASS.

It has been said by some writers that a farmer ought never to sow grass seeds with any kind of grain, but in all cases to sow it by itself; which, it is affirmed, will always do more than repay the loss that is sustained by the want of a crop of grain. Dr. Anderson and some other writers, however, condemn that practice, and observe, in substance, that if we were to have regard to no other circumstance but the grass crop alone, it will always be best to sow it with some kind of grain; but when we consider likewise the loss that the farmer sustains for want of a crop of grain, the practice recommended of sowing grass seed alone must be looked on as highly pernicious.

When grass seeds are sown with grain the latter grows quickly and prevents the growth of annual weeds, while it shades the tender plants of grass from the direct rays of the sun, and preserves the earth in a proper degree of moisture, so as to nurse the tender grass in the most kindly manner. The grain decaying after the grass is well rooted and can bear the heat and drought, the grass obtains as much air as is necessary.

Though ground is not often too rich to bear a good crop of grass, yet, sometimes it may be too highly manured to produce a good crop of grain. In this case, it may be prudent to forego the hope of a crop of grain, but not to omit sowing the seeds of some kind of grain with the grass seeds. Grain should, where the land is very rich, be sown thinly over the field, and will help to bring forward the grass in a kindly manner, and if the season proves dry, the farmer may thus obtain a very great crop. But, if the season is rainy, or the crop from any other cause too luxuriant, whenever the grain or the grass begin to lodge, so as to be in danger of rotting, it should all be cut immediately, and employed as a green fodder for cattle or made into hay. The extraordinary quantity of fodder procured in this way, will more than indemnify for the price of the seed of the grain; as the farmer may thus procure two full crops of succulent fodder in one season.

Autumnal sowing of grass seed is not approved of by good writers. The spring of the year is preferred as less precarious, although fall sowing will sometimes answer.

The mould of the ground, which is laid down to grass, should be made very fine, as the seeds, being very small, may otherwise be covered too deep, by falling below, or be scorched by lying above great clods. Like other seeds, they require a due degree of moisture to cause them to vegetate, and therefore should not be left exposed to the rays of the sun without being covered; for unless rainy weather follows immediately after sowing, many of the seeds will not vegetate. On this account it is always well to harrow the ground immediately after sowing with a light close-toothed harrow, which should be kept for that purpose; and sometimes a gentle rolling is of use after that, especially upon light spongy ground. But no one circumstance so effectually ensures the vegetating of these small seeds as sowing them as soon as possible after the ground is ploughed, while the soil remains moist. It is always good economy to lay down rich, and not poor ground to grass.

It is asserted in the Memoirs of the New York Board of Agriculture, that "grass seeds take remarkably well with buck wheat. Three pecks of buck wheat per acre may be sown, and the grass seeds harrowed in with it; the whole should be neatly rolled, and a smooth surface left; as buck wheat sown at this season will not go to seed to advantage, part of the crop, when in full blossom, should be cut daily, as green food for working horses and cattle."

Rees' Cyclopaedia, under the articles "Grass," and "Laying-down to Grass," gives very copious and minute directions on this subject, of some of which we shall avail ourselves, and others are either well known to our practical agriculturists, not well adapted to our soil and climate, or in substance comprehended in what we have written. "It is better that the lands intended for grass, especially when they are intended to be kept in a permanent state of sward, should incline, in some measure, to moisture; light, thin, dry descriptions of soil are better suited for the production of grain. The most usual period of putting in grass seeds has been the spring, at the time the grain crops are sown; but where the land has been brought to a suitable state of preparation, by means of green and other fallow crops, the latter end of the summer, as about August, has been the more general time. In the former case they are most commonly put in with the grain crops; but in the latter without any other sorts of crops." On this subject there appears to have been a great diversity of opinion, but on the whole it seems to be the belief of the best agriculturists that grass seeds answer almost equally well in either method. "Where the land is in a proper state of preparation and tillage, if sown with oats, they will be apt to become so luxuriant as to greatly injure, if not wholly destroy, the young grass-plants, by the closeness of their shade. In some cases, however, they succeed tolerably well with this sort of crop." "The practice of employing bush harrows is improper, as in that way the seeds are liable to be drawn into lumps."

Sir John Sinclair observes that "the manner of sowing grass seed requires to be particularly attended to. Machines have been invented for that purpose, which answer well, but they are unfortunately too expensive for the generality of farmers. It is a bad system to mix seeds of different plants before sowing them, in order to have the fewer casts. It is better to sow each sort separately, as the expense of going several times over the ground is nothing compared to the benefit of having each sort equally distributed. The seeds of

grasses, being so light, ought never to be sown in a windy day, except by machinery, an equal delivery being a point of great consequence. Wet weather ought likewise to be avoided, as the least degree of soaking is injurious.

"When the grain is carried off, the young crop of grass should be but little fed during autumn; but heavily rolled in the following spring, in order to press the soil home to the roots."

Red Clover is more used in New England in laying and down to grass, perhaps, than any other grass. The author of a valuable work, published not long since in Albany, entitled "A Treatise on Agriculture" directs ten or twelve pounds of clover seed to be sown on an acre, if the soil be rich, and double the quantity if it be poor. He condemns the practice of mixing the seeds of timothy (herd's grass of New England) and rye, grass, &c. with those of clover, "because these grasses neither rise nor ripen at the same time. Another practice, equally bad, is that of sowing clover seed on winter grain, before the earth has acquired a temperature favorable to vegetation, and when there can be no doubt but that two thirds of the seed will perish." This writer is likewise of opinion that clover should not be pastured the first year, and observes, that "if the *crowns* of young clover plants be nibbled, or otherwise wounded, the roots die. Sheep and horses (both of which bite closely) should, therefore, be particularly excluded from clover, unless intended for pasturage only."

The best European cultivators allow from fifteen to twenty pounds of clover seed to an acre. By this mode of sowing it grows less rank, lodges less, and is more profitable for making hay, or soiling. They likewise recommend sowing this grass in the spring, even when the grain with which it is to grow has been sowed the fall preceding. They advise harrowing the clover in, when it has been sowed under these circumstances, and assure us that the harrowing will not injure the grain, but rather be of service to it.*

If the land be moist and rich, herd's grass, alias timothy grass, alias meadow cat's tail, is, perhaps, better to lay it down with than clover. It requires about ten or a dozen quarts of seed to an acre. This grass succeeds better in the northern than in the southern parts of the United States. We believe farmers in general in New England, unless the soil is dry, light and sandy, prefer mixing clover with timothy seeds, in laying their lands down to grass, allowing more or less timothy in proportion to the moisture of the soil. And, notwithstanding the respectable authority of the Albany writer, adverted to above, we are not prepared to condemn this practice. The timothy has a tendency to prevent the clover from lodging; clover is more easily made into hay when mixed with that grass, and the mixture forms a food, which appears to be more agreeable to neat cattle than either of those grasses separately.

Some English writers advise, when convenient, to pasture land, which has been recently laid down to grass from three to six years, without mowing it. It will afford more feed, than if it had been mowed a year or two, and will not (as our farmers express it) bind out so soon; that is the grass roots will not, so soon, become so matted together as to prevent the growth of the plants, and require breaking up, in order to render it productive.

*See Messrs. Wells & Lilly's edition of Deane's New England Farmer, article "Clover."

Senna.—The Editor of the American Farmer states that he has received a small parcel of Senna seeds from Wm. Cattell, Esq. of Charleston, S. C. which has been cultivated and found to possess the virtues of the imported Senna.

Great Crop of Mangel Wurtzell.—The last American Farmer contains certificates, which prove that John Hare Powell, Esq. raised nine hundred and eighty-two and an half bushels of Mangel Wurtzell roots, closely cut beneath the crowns and free from dirt, on one hundred and fifty-five and a quarter square perches, less than an acre of ground. The crop was estimated by the Editor of the American Farmer, from one load's being weighed, to weigh 45,756 pounds, of clean trimmed roots.

FARMER SUMMARY OF NEWS.

Congress, and the President's Message.—The second session of the seventeenth Congress commenced on the 3d inst. The Message of the President was received, read, and 3000 copies, together with the documents, ordered to be printed. The message commences with a favorable view of the political system of the United States, which will not call for augmented cares, but states that other causes exist which are highly interesting as well to the United States as to the whole civilized world. It gives a pleasing view of our commercial relations with France and Great Britain—States that his Imperial Majesty the Emperor of Russia on the question submitted to him by the United States and Great Britain, concerning the construction of an article of the Treaty of Ghent, has been received, and that a convention has since been concluded between the parties, under the mediation of his Imperial Majesty, to prescribe the mode of carrying the article into effect, in conformity to the decision—It informs that a Territorial Government has been established in Florida—That the fiscal operations of the year have been more successful than was anticipated at the commencement of the last session of Congress, and that there is now a surplus in the treasury, and a greater one is anticipated—It commends the organization of the United States' Army—Speaks highly of the Military Academy—Remarks on piracy of the West Indies as of a recent date, and of the efforts of the U. States to suppress it—States that a serious malady has deprived us of many valuable citizens at Pensacola, and checked the progress of some of those arrangements which are important to the territory—That the Lead Mines require an agent skilled in mineralogy—That the Cumberland road needs repairs—That our manufactures have increased and are increasing—It gives a concise view of the aspect exhibited by foreign nations, which shows that the U. S. as a member of the great community of nations have rights to maintain, duties to perform, and dangers to encounter—The situation of Spain and the Independent Governments south of the U. S. is concisely adverted to—The situation of the Greeks is spoken of with feeling, "that such a country should have been overwhelmed, and so long hidden as it were from the world under a gloomy despotism;" but "a strong hope is entertained that these people will recover their independence, and resume their natural stations among the nations of the earth"—The effort which has been made in Spain and Portugal to improve the condition of the people is mentioned as consoling to all benevolent minds, and the President observes, that "when we see that a civil war of the most frightful character rages from the Adriatic to the Black Sea; that strong symptoms of war appear in other parts, proceeding from causes which, should it break out, may become general, and be of long duration; that the war still continues between Spain and the Independent Governments, her late Provinces, in this hemisphere; and that it is likewise menaced between Portugal and Brazil, in consequence of the attempt of the latter to dismember itself from the former; and that a system of piracy of great extent is maintained in the neighboring seas, which will require equal vigilance and decision to suppress it; the reasons for sustaining the attitude which we now hold, and for pushing forward all our measures of defence with the utmost vigor, appear to me to acquire new force."

Matthew St. Clair Clark, of Pennsylvania, has been chosen Clerk of the House of Representatives.

Mr. James Little, residing near Auburn, N. Y. was killed on the 16th ult. by his wagon overturning, and together with its contents falling on him.

Counterfeit \$10 bills of the Phoenix Bank, N. Y. and on the Bank of Troy, are said to be in circulation.

The Pirates.—Reports have reached us by an arrival here, and at Baltimore, that a British vessel of war has succeeded in capturing several pirates, in the neighborhood of Matanzas. A letter from Havana, of the 20th ultimo, received at Georgetown, confirms these accounts, and states that it was the Tyne Sloop of War that had a fight with the pirates in Lijupao Bay, and took 29 prisoners. The Tyne lost 12 killed, besides wounded. The loss of the pirates was supposed to be 40 or 50. A piratical vessel lay off Havana on the 20th ultimo, which had threatened to capture the brig Elizabeth-Ann, bound to Philadelphia, even if he had to follow her to the Delaware.—N. Y. Mer. Adv.

The U. S. schooner Alligator was totally lost on the 19th Nov. on Carysford Reef—crew all saved.

Mr. Symmons Thrasher, of Attleborough, (Mass.) killed a hog on Friday last, which weighed 576 pounds. Mr. T. purchased this hog about a year since, when he was about four months old and weighed only 70 pounds.

A Mr. Clark, of Albany, has now in his possession a sow two years and seven months old, weighing 668 lbs.—two of her pigs 16 months old weighing, the one 635, the other 560 pounds, and a pig of nine months old whose weight is 490—the aggregate amount of weight of the family, 2,893.—N. Y. American.

Three large Oxen.—A few days ago three oxen passed through this city on their way to New York, which weighed, according to the patent scales of L. Bishop, Esq. as follows, to wit—3030—2570—2456. These oxen were raised and fattened by Col. Chapin, of Springfield, (Mass.) We are informed that a year or two ago Col. Chapin sold a pair of oxen in Boston for \$1050, neither of which weighed as much as the largest of the first mentioned oxen. It remains to be seen that the New Yorkers will be as liberal as the Bostonians.—About ten days since the mate of the largest of these three oxen died, and more than 300 pounds of rough tallow was taken out of him, exclusive of the kidney tallow.—New Haven Register.

Warning to Teamsters.—On Friday last, Mr. Michael Sweet, a respectable teamster, was precipitated by a sudden jolt from the tongue of his ox cart, the wheels of which passed over him, and besides injuring his scalp, fractured his right arm so badly, that amputation, it is feared, may become necessary. Let this unfortunate accident operate as a warning to teamsters not to sit upon the tongue of their wagons.—Providence American.

The Locomotive Gazette gives an account of a Panther's being killed by two dogs belonging to a person, who was in pursuit of wolves. The combat took place in the night, and was very obstinate.

Spontaneous Combustion occurred on the 29th ult. in the coal yard of Mr. Joseph Jamison, Baltimore. The fire occurred in a mass of coals, containing about five thousand bushels, and though apparently extinguished several times, it again broke out, and was the cause of successive alarms.

The Rochester, N. Y. papers inform that emigrants are conveyed on the Grand Canal, at the low rate of one cent a mile, and in proportion for furniture and effects.

We have been informed from a source that leaves us no reason to doubt the fact, that the society of Shakers at Canterbury in this state, have, within three weeks, sold TEN barrels of Cider in Boston, for which they received ONE HUNDRED DOLLARS in cash. Good common cider has been selling in this town for one dollar a barrel. Such is the difference between good, and very good!—Portsmouth Journal.

A cow may now be seen at Harrisburg (for 12 1-2 cents) upwards of 16 hands high, and supposed to weigh 1600 lbs. She was raised in Columbia County.—Penn. Correspondent.

An English horse, called Childers is said to have been the swiftest ever known, and has been known to have run near a mile in a minute. He cleared the course in New Market, which is only 400 yards short of four miles in 6 minutes and 40 seconds; running at the rate of 82 1-2 feet in a second. Eclipse is said to surpass him in strength, and to be but little inferior in swiftness.

DIED.—In Medford, Thursday morning, Rev. David Osgood, D. D. aged 75.—In this city, Isaac Rand, M. D. A. A. S. aged 80.

HEALTH.

The subject of my song is Health,
A good superior far to wealth.
Can the mind distrust its worth?
Consult the monarchs of the earth:
Imperial czars, and sultans, own
No gem so bright that decks their throne;
Each for this pearl his crown would quit,
And turn a rustic, or a cit.

Mark, tho' the blessing's lost with ease,
'Tis not recover'd when you please.
Say not that gruels shall avail;
For salutary gruels fail:
Say not, Apollo's sons succeed;
Apollo's son is Egypt's* reed.
How fruitless the physician's skill,
How vain the pestilential pill,
The marble monuments proclaim;
The humbler turf confirms the same;
Prevention is the better cure;
So says the proverb, and 'tis sure.

Would you extend your narrow span,
And make the most of life you can;
Would you, when med'cines cannot save,
Descend with ease into the grave—
Calmly retire, like evening light,
And cheerful bid the world good night?
Let Temp'rance constantly preside;
Our best physician, friend, and guide!
Would you to wisdom make pretence,
Proud to be thought a man of sense?
Let Temp'rance (always friend to fame)
With steady hand direct your aim;
Or, like an archer in the dark,
Your random shaft will miss the mark:
For they who slight her golden rules,
In wisdom's volume stand for fools.

*In allusion to 2 Kings, xviii. 21.

FOR THE NEW ENGLAND FARMER.

There is a propensity existing in the minds of the most of mankind to resist the claims of those who appear to think that they deserve distinction, and profess to be candidates for renown. The best way therefore, to win applause is not to court it. Persevere in the path of rectitude, and if Fame follows you, very well, but never run after it.

Money laid out for the purpose of obtaining a high standing in society, or in other words for the sake of out-dashing and out-shining one's neighbors is generally thrown away. We live in an age, when splendid furniture, glittering equipage, and fine buildings are grown too common to attract much notice from spectators.

There is no life more fatiguing and perplexing than that of the subordinate votaries of fashion, who attempt to be *stylish* by dint of extravagant expenditure, and living beyond their income. Splendid indigence, finery and want, expensive but temporary shifts to support the appearance of plenty, when poverty oppresses and debt menaces are infinitely more distressing than open and avowed poverty.

A life well employed is an agreeable as well as a useful life; but "the pains and penalties of idleness" make existence a burden, which, in some instances has been found so insupportable that the wretched sufferer has sought refuge in suicide.

A man who has the appearance of order and economy in his family, who does not permit his sons to "hoe corn in silk breeches," nor to roll logs in ruffled shirts, nor to wear their best clothes on common occasions, nor suffer his daughters to make butter and cheese in chintzes and muslins, nor sweep the kitchen in silks and laces, will sooner be trusted and stand higher in the estimation of all sensible people than any other man of equal property, who sets up for gentility, with a family of smart sons and dashing daughters, the beaux and belles of the neighborhood, the former calculating to live on their wits, and the latter expecting to be maintained by their beauty, and all but worshipped for their accomplishments.

A more costly dress than the occasion requires, or the circumstances and station of the wearer can justify, are proofs not only of the extravagance, but of the *vulgarity* of the wearer. Many a would be fine lady and fine gentleman have thus made themselves ridiculous by the very means they made use of to attract admiration.—But parents, should, generally, permit their children to dress in a style somewhat similar to that of the young persons with whom they commonly associate; otherwise they will probably be ridiculed by their companions, which will make them feel undue inferiority, inspire them with envy, and spoil their dispositions.—Not that their clothes should be equally expensive, but their general appearance should be similar.

No man can be called great, merely in consequence of the station in which he is placed in society. The highest honors are but the pedestal, and merit is the statue erected upon it.

There is nothing more provoking than the condolence of a pretended friend, who appears to sympathize with you in your calamity, when you have reason to believe that in his heart he exults over your misfortunes.

Addison says that a dog has been the companion of man for more than 6000 years, and has learned of him only one of his vices—that is to worry his species, when he finds them in distress. Tie a tin canister to a dog's tail, and another will fall upon him—put a man in prison for debt, and another will lodge a detainer against him. This propensity to afflict the afflicted has given rise to the vulgar, but we fear correct adage "When a man is going down hill every one gives him a kick."

The man who is the most careful in examining facts, and the most accurate in authenticating them, will, in general, form the most correct conclusions; and him we call judicious. He who is the quickest in comparing and combining those which present themselves to him, and the most rapid in deducing conclusions is said to have talents. These two faculties are by no means necessarily conjoined; and thus it happens that men of talents are not always men of solid understanding.

The passion of De Luc, the natural philosopher, for music, was so predominant in his latter days, that a piano was placed by his bed side, on which his daughter played great part of the day. The evening of his death, seeing her father ready to sink into a slumber, she asked him, "Shall I play any more?" "Keep playing," said he, "keep playing." He slept—but awoke no more.

ON THE USE OF LIME.

Mixed with Gunpowder, in rending rocks and stones. By H. D. Griffith, Esquire, of Caerhun near Conway, North Wales.

From the letters and papers of the Bath and West of England Society.

Having been for some time in the habit of perusing your interesting papers on agriculture and other subjects, I am induced to lay before the society a circumstance, which, though perhaps familiarly known to them, might, if more generally divulged through the channel of their publications, be of infinite advantage to the public.

In clearing my lands of the heaps of stone with which this country every where abounds, I found the quantity of gunpowder used in the operation to amount to a considerable sum at the end of the year; and as the price of this article has been increasing of late to an enormous amount, I had recourse to an expedient, by which the expense of it has been materially diminished.

I weighed out two pounds of gunpowder, and one pound of quick lime, well dried and pulverized; which, after having been thoroughly mixed with each other, I delivered it to the blaster, with directions to apply it, in similar quantities as he would have done the gunpowder by itself. I then selected six of the hardest granites I could find for the experiment; and the effects of the explosion were precisely the same as if gunpowder alone had been used. It now occurred to me, that this might be fallacious, and that a smaller proportion of gunpowder would produce the same effect as a larger; I accordingly ordered the man to bore holes in a similar number of stones, of the same texture and size with the former, and to put in a less quantity of gunpowder, by one third, than he would have done if it had been left to his own management. The stones were separated by the shock; but the difference in the effect was manifest to every person in the field; those with the mixture of lime and gunpowder having been much more effectually broken and shattered than the others.

After the success of this experiment, I have constantly adhered to the practice; and am so satisfied of its utility, that I wish to see it more generally adopted. One thing is certain, that a mixture composed of equal parts of quick-lime and gunpowder will *explode*; and, if this mixture were used merely as a train of communication to the powder within the stone, what a national saving would it be in works carried on upon an extensive scale, such as the numerous quarries and mine works of this kingdom!

Swiftness of Men.—Men who are exercised in running outstrip horses, or at least hold their speed for a longer continuance; in a journey too, a man will walk down a horse; and after they have both continued to proceed for several days, the horse will be quite tired, and the man as fresh as in the beginning. The king's messengers of Ispahan who are runners by profession, go 108 miles in 14 hours.—Hottentots outstrip lions in the chase, and savages who hunt the elk, tire down and take it, are said to have performed a journey of three thousand and six hundred miles in less than six weeks.

Coles, in his excellent history of plants, notices the virtues of hemp thus laconically: "By this cordage ships are guided, bells are rung, beds are corded, and rogues are kept in awe."

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No. 21.

From the National Aegis.

MINERALOGICAL.....No. V.

That Science which renders no assistance to the industry of man, is unworthy of its association with the circle of those which multiply the means of human happiness, and that art which rests not on the broad foundation of scientific principle can never approach the limit of perfection. Constant practice, continued efforts, uninterrupted toil will work wonders. They give to their products, a polish, a neatness and an elegance which no other method can supply. But habit is always servile. It follows some example, it copies from some prototype, it pursues authority. Without the boldness of originality, or the daring of invention, it seldom strikes out for itself the path of improvement. The artist may be taught to unite the parts of complicated machinery, but his manual dexterity can never enable him to bring new powers into action, or avail himself of new mechanical agents. When the precepts of the master fail him, he is without a guide and at a stand. An acquaintance with nature and its laws, added to skill in imitation, would enable him to advance with certainty; and with the inducements to experiment, would give the assurances of success. From his connexion between the arts and sciences this mutual interchange of support, the advantage of theory is easily deduced. Not that false theory, which is the visionary fabric of the imagination, but the more substantial structure erected upon the firm basis of fact and observations. Insulated particulars divide and distract attention when existing separately; when collected under general heads, they form landmarks to determine the progress already made, and to point out the course in which to advance. He who records the experience of others, and goes through the process of generalizing, contributes more to the improvement of the earth, than one who holds the plough, or wields the sickle, without knowing a reason for his operations. Agriculture will not assume the rank to which it is so justly entitled, at the head of other professions, till it shall lean more upon science, and become less dependant upon imitation and precedent.

In an age when the acquisition of wealth is made the end of living, and profit adopted as the standard of utility, when the question what benefit is this, meets us at every step, it is necessary, in recommendation of any pursuit, to demonstrate its application to the common purposes of life. That this should be so, is but reasonable. Society has a claim upon all its members, to recompense the protection and the security which it extends. The existence which is spent in listless inactivity, is like the waveless calm of waters when no winds ruffle the surface. The expanse is clear and beautiful, but the sails of Commerce are not swelled, and the vessel is not wafted to the harbor. Selfishness may claim indulgence in following those objects which have solitary gratification in view, but men more liberal, will contribute to the good of others. Much satisfaction there may be in tracing the time worn letters of some mouldering coin, and taxing ingenuity to supply those which the eye

cannot discover, but there is more pleasure in watching the changes in the retort or the crucible, with the intention of aiding the cultivator of the earth, and lightening the burden of labor by the application of science. He that employs whole years in decyphering an inscription which perhaps has no local habitation but in his own fancy, and no name other than that his enthusiasm bestows, is less valuable in society than the mineralogist who pores upon the angles of a crystal or contemplates the structure of rocks, and examines the formation of the globe, that he may communicate the secret of its treasures or unfold the nature of its soils.

Yet Mineralogy has much that can interest him, who seeks only the employment of the hours of leisure. The beauty, the richness and the extent of its objects cannot be exceeded by the subjects of any other department of science. The flowers which open in the beams of morning, fade in the noon day heat. The Oak, which outlives whole generations falls and decays. But the rocks, the hills, the mountains endure. The footsteps of Men, were printed upon them long before we had our existence, and they will be traced there long after we are gone to our silent homes. Standing as they do, unmoved by the storms of ages, while the finest monuments of art are crushed to the dust, they present to the observer, a page of that great volume, where there is grandeur of causes, sublimity in effects, and harmonious order. It is not for the gratification of that indolence which seeks relief from the burden of existence in the chase of frivolities, that the scholar interests himself in such studies. In following his own inclinations, he adds to the existing stock of knowledge, and wipes the sweat from the brow of toil. The lover of nature finds new sources of instruction and amusement at every step. Other branches of inquiry may render him wiser, but this makes him both wiser and better. Restraining the violence of passion it draws closer the ties which bind him to his fellow men, and promotes individual happiness by increasing the general good.

To those who cherish the desire of acquiring reputation, Mineralogy holds forth numerous allurements. From whatever source that feeling derives its origin, which forces us to revolt at the idea of being lost in the darkness of oblivion, to be as though we had never been, it is an honorable sentiment. To identify our existence with the monument which marks the spot where our remains shall rest, to be read only in inscriptions and to live only in name, shows but a poor conception of the value of fame. To subsist in lasting memorials, to survive in memory of the benefits conferred, is a laudable ambition. Ours is a country, where all is new, where discovery has not yet explored the extensive regions of its territory, and gathered up all that was worthy of notice. Placed as it were on the verge of the wilderness, at that point where cultivation ends, and the forest begins, the fair fields that lay behind us, show the improvement of which those which are yet unsubdued are capable. The adventurer whom fortune has favored with the opportunities and

advantages requisite for such occupations has only to go forward and he will prosper.

That the strong features of natural character, depend upon the outlines of geological structure, is true to a certain extent. The discussion of the influences of temperature, scenery, or climate, upon the mind, is the province of the metaphysical. No one who has felt the warmth of spring succeeding the cold of winter, will deny that there is much efficacy in such means. Though genius may rise superieur to the depression of a foggy atmosphere, yet its highest upward aspirations have been where the heavens are fairest, and the face of nature most lovely. In the genial regions of the South, painting and sculpture have arrived nearer to perfection, and poetry which is the representative of the feelings of a people, has breathed in softer numbers than in the ruder districts of the North. In those wild countries its notes have had more boldness and originality, and have given expression to those high toned sentiments and patriotic feelings so congenial to the land of forests, rocks and precipices. It is not unphilosophical to ascribe these differences to the effects of varied circumstances in the geographical situation or the surface of a land. If observation confirm the position, that regions like Switzerland and America, whose mountains lift themselves to vast elevations above the sea, are those places where independence of thought and action exist, we have only to ascertain whether the lofty ridges of a primitive section, rise into abrupt and craggy summits, or whether the surface is diversified by the gentle swellings and undulations of a less marked formation, to determine whether a nation possess the hardy spirit of freedom or are sunk in the degradation of slavery. Without venturing the extravagant length of asserting that Quartz or Feldspar, or any other mineral are essential to human prosperity, or that genius and virtue must be circumscribed by the boundries of Limestone or Granite, we may safely venture to say that the prominent characteristics of a people may depend upon the structure of the country they inhabit.

A single remark more upon the satisfaction resulting from the study to which we have adverted, and we have done. He who has accustomed himself to minute observations on the various products of the earth, if he does not possess himself of wealth, yet opens numerous stores of amusement. In every rock he recognizes the rugged face of an old acquaintance, in every stone beneath his feet he renews his intimacy with a friend. To select where all is beautiful, to give a decisive preference where all is inviting, is injustice. Renouncing that limited prejudice, which seeks to exalt a favorite, by disparaging every other object, he who contemplates nature will delight to survey all her works. He will find

“— tongues in trees, books in the running brooks,
Sermons in stones, and good in every thing.”

Selfishness is the hydra we should be perpetually combating; for the monster has so much vitality, that new heads spring up as fast as the old ones are cut off.

FACTS AND OBSERVATIONS RELATING TO AGRICULTURE & DOMESTIC ECONOMY.

FOR THE NEW ENGLAND FARMER.

Extracts from an Address delivered before the Western Society of Middlesex Husbandmen, by Rev. Wilkes Allen, A. M.

"It was the complaint of a learned investigator of the works and ways of nature, and of an experimental farmer before the formation of any agricultural society in America, that though men of business, ingenuity, and observation, might find out things valuable and useful, yet for want of some proper method to communicate them, they would die with the discoverers, and be lost to mankind.*

"By association and a free interchange of thoughts, the discoveries and improvements of one become the common property of many. By example and conversation the mind receives a powerful impulse to action. It shakes off its indolence, and puts forth new efforts to equal a superior, or rival an equal. It seizes upon new tracks of thought, and pursues them to some new and important discovery. By social intercourse, knowledge is diffused, emulation inspired, the attention fixed on new objects, and growing attainments are secured. Associations of men of the same occupation and employment have been vastly beneficial to one another in various ways. But the useful tendency and beneficial influence of associations for specific objects will not, I trust, be disputed in this society-making age."

"The beneficial influence of agricultural societies has been experienced in breaking up long established associations, unfriendly to improvement. Within the memory of many now living, each successive generation walked in the steps of the preceding. The same field was planted in the same manner for a century. Any deviation from ancient usage was deemed disrespectful to the memory of the dead. Prejudice and error were hereditary, till science with her torch led on to new discoveries, and experience elucidated and enforced the truth and importance of her decisions."

"The advantages of agricultural associations are not confined to annual exhibitions and shows and to the collection and distribution of information. "Their purposes terminate not in instructing in new courses of husbandry, but in introducing new principles of action." By calling the works and improvements of the retired and unknown farmer into public notice, you place him in some respects on an equality with men of other professions, who are constantly moving in a public sphere, and acting in view of the multitude of spectators. You at once excite in his breast a strong desire to excel in his art by making him realize, that his art or profession is an object of public attention, and a means of obtaining celebrity. You at once touch the main spring of action, by pointing out a road to fame, honor, and emolument, and placing the obscure agriculturist in the high way to that distinction, which the physician, the lawyer, and the divine, enjoys by excellence in his profession. The ultimate object of agricultural societies is to give new strength to the common spring of action, ambition to excel in the art or profession of a farmer."

* Rev. Dr. Jared Eliot, Killingworth, Conn. 1747.

"The potatoe was not known in Europe in Queen Elizabeth's day, and her sallads were imported from Flanders."* In this country, nearly a century elapsed before the kind and salubrious properties of the potatoe were known, and its important uses discovered. This great benefactor of mankind was long viewed with a jealous eye, and taken into the stomach with as much caution as the most nauseating medicine of the physician. But whence this change in public feeling, sentiment, and practice? It is unquestionably owing to a few enlightened individuals forming themselves into companies, setting out on enterprises of discovery for the good of mankind. As in the sea, wave impels wave to the shore—so in society, man acts upon man. His example, the benefit resulting from his enterprise, the public honor with which it is crowned, all conspire to excite in those around him a noble emulation. The flame of emulation catches from breast to breast, as the electric flash passes through contiguous bodies, till the whole community feels the impulse first given by a single individual."

"Gentlemen, the association you have formed and are attempting to found on a rock, a fund, which is to give vital animation to you and all around you, is an institution of great importance to the general interest and prosperity of the country, and especially to those within the sphere of its influence. To promote and secure the wide and lasting benefits, which, it is confidently believed, may result from it, every member must feel himself of vital importance, and act as though its whole prosperity depended on his exertions. Never lose sight of the object, which is *improvement in domestic manufactures, and every branch of field husbandry*. Need I remind you of the immense field open for your exertions? Need I remind you, that the walls, which your forefathers built, are fallen down, the orchards they reared up, decayed, and the pastures they cleared, grown over with thorns and briars? Need I echo in your ears a truth, which every where meets the traveller's eye, that there are yet vast tracts of unproductive land, capable of the highest improvement, and wanting nothing but the plough, the hoe, and the hod, to make them just what the possessors would have them to be, fruitful fields, and well cultivated gardens? Diminish the quantity and increase the good quality of your lands, and you will have the means of supporting handsomely two families, where one now scarcely obtains a comfortable living. I am borne out to the full in this assertion by the experiments of many practical farmers.—Particularly by those of Mr. Upton, Superintendent of the almshouse farm in Salem."†

"You begin your labors, Gentlemen of this Society, at an age, and under circumstances, which promise all the most sanguine can expect. A new agricultural era has commenced. Men of learning, talents, and influence are enlisted in the cause; and the public attention, released from the labours, cares, and ravages of war, is directed to the interests of agriculture. Your art and profession as husbandmen are rising to their native rank and dignity; and to accelerate their progress you must diffuse useful knowledge, and improve the education of

* J. Lowell's Address, 1818.

† See Mass. Agricultural Repository, No. 3, Vol. 5.

those destined to agricultural pursuits. Knowledge and virtue adorn and dignify the human character. They add respectability and dignity to bodies politic as well as to individuals."

*It is a remark applied by a late writer, to France, but equally applicable, it is believed, to America, "that agriculture till of late has been considered a degrading employment." The reason why it has been so considered will be found in the want of education, knowledge, and intellectual improvement among that class of people, who exercise this art. Increase the moral and literary attainments of the great body of agriculturists, and you exalt their character and profession. Too long has the error existed, that a classical or academic education is lost upon those, who are designed for agricultural pursuits. Fatal to the usefulness and virtue, to the hopes and prospects of many young men of more than ordinary education, has been the idea, that the labors of the field or the mechanic's shop are beneath *their dignity*; that knowledge raises men above, and disqualifies them for the necessary and more humble, yet useful employments of life. To young men of these feelings and sentiments, we would recommend the careful perusal of the following lines of the poet.

A little learning is a dangerous thing;
Drink deep or taste not the Pictian spring;
There, shallow draughts intoxicate the brain,
But drinking largely sobers us again.

This hint, it is hoped, will be sufficient to induce the more opulent farmers of our country to raise the standard of what is commonly called a good education for farmers' sons, destined to follow the profession of their fathers.

HOW TO DISTINGUISH CATTLE WHICH HAVE A PROPENSITY TO FATTEN.

Mr. Culley, a famous English breeder, has given the following directions relative to this subject. "We undoubtedly first judge by the sight, which being pleased we bring the sense of feeling to its assistance; and if this also approves, we then conclude that the animal suits our purpose, or is answerable to the idea we have formed of it. A nice or good judge of cattle or sheep with a slight touch of the fingers upon the fatting points of the animal, viz. the hips, rump, ribs, flank, breast, twist, shoulder-core, &c. will know immediately whether it will make fat or not, and in which part it will be the fattest. I have often wished to convey in language that idea or sensation we acquire by the touch or feel of our fingers, which enables us to form a judgment when we are handling an animal intended to be fatted—but I have as often found myself unable to fulfil that wish. It is very easy to know where an animal is fattest which is already made fat, because we can evidently feel a substance or quantity of fat upon all those parts which are denominated the fatting points; but the difficulty is to explain how we know or distinguish animals in a lean state, which will make fat, and which will not, or rather which will make fat in such points or parts, and not in others; when a person of judgment (*in practice*) can tell as it were instantaneously: I say *in practice*, because I believe the best judges out of *practice* are not able to judge with precision, at least I am not. We say this beast *touches* nicely upon the ribs, hips, &c. because we find a mellow, pleasant feel on those parts; but we do not say soft; because there are some of the same sort of animals which have a soft loose handle, of which we do not approve, because though soft and loose, they have not the mellow feel above mentioned; for though they both handle loose and soft, yet we know that one will easily become fat, and that the

From the New York American.

Butter—Russian mode of Making.—A New Discovery.

Sir—Observing in your paper last evening, a communication from Mr. Hugh Hartshorn* to J. S. Skinner, Esq. on the subject of making Butter in Winter, I beg leave to furnish a few particulars on that subject, as practised in Russia, since the year 1816, and which, may perhaps, be of some service to those who may be induced to make the experiment, either in Summer or Winter. Being in that country in the year 1817, I was informed by a Russian Nobleman that the proprietor of an extensive estate (also a Nobleman of high rank) had discovered a new mode of making Butter, and had received letters patent from the Emperor as a reward for the discovery, and which he stated as being at that time in full and successful operation. The process consisted in boiling (or rather that species of boiling called simmering) the milk for the space of fifteen minutes in its sweet state—observing at the same time not to use sufficient heat to burn the milk; it is then churned in the usual manner. He also stated that no difficulty ever occurred in procuring Butter immediately, and of a quality far superior to that made from milk which had undergone vinous fermentation; and that, in addition to its superior flavour, it would preserve its qualities much longer than that made in the ordinary mode; that the additional advantages were, that the milk, being left sweet, is possessed of almost the same value for ordinary purposes, and by some was considered more healthy, as they supposed the boiling or scalding to destroy whatever animalculæ it may have contained.

If the above process should upon experiment prove of sufficient importance, so as to bring it into general use, particularly in the winter, it would perhaps be to the advantage of those who may practice it to have their milk scalded in vessels calculated to stand in the kettle or boiler, by which mode the danger of burning the milk would be avoided, for it is ascertained that milk only burns on the edges of its surface, or where it comes in contact with the sides of the vessel in which it is heated, which can never happen in double kettles, or where one is placed within the other.

A SUBSCRIBER.

December 5.

* See New England Farmer, No. 20, p. 155.

From the American Farmer.

TO CURE NEAT-CATTLE OF THE MANGE.

Pennsylvania, April 12th, 1822.

DEAR SIR,

When your Cattle have the mange, cause them to be well washed with soap—at night, give half an ounce of nitre; repeat it the next morning. If the weather be good, rub well on all the parts affected, some ointment, prepared by the subjoined recipe—let them be kept under cover for two days and nights, then turn them into the field where they can run, produce sweat and rub themselves; if necessary, repeat this treatment. This disease sometimes attacks the fat, and the thin. I have never failed in attempting a cure, and within five weeks. Pinch the tail throughout, if any soft place be found, slit it with a sharp knife so far as the softness extends. I know from an accurate observation,

during four years, and minute investigation of the practices of the best graziers, (with whom I have much to do) that such state of the tail is proof of tendency to "hollow horn." I mean that the "tail rot," as it is called by Downing, the English Cow Leech, is a symptomatic disease indicative of some affection of the spine, which generally produces a more fatal malady, accompanied by hollowness of the horns.—A small quantity of white mucus, or serum like stuff, exudes generally from the incision.

In New England, they all cut off the tails.—I cut off the long hair, at the ends, but never remove any portion of the bone, although I do not hesitate at pushing a sharp knife through the soft parts of half a dozen calves or cows tails in a morning. I have seen an animal on her side, which, within half an hour, was led to rise and after eat, merely by cutting off three inches of the tail. Some of the best Surgeons to whom I have spoken, think that my notions are perfectly consistent with the received opinion of the connection between the spine and tail of a quadruped. The remarks of some of the old farmers of this county, excited my ridicule on this point, at first. They go so far as to assert, that the tail is injured by treading on its end when the animal makes an effort so rise—the most skilful farmers, and the most celebrated in this neighborhood, among us fellows who do not faint at smells, cut off the hair for the reason I have given.

I would be glad to welcome Mr. C***** here. The finest grazing land in the Atlantic States, I think is the alluvion on the West Bank of the River Delaware. And the best Grazing Farms could be purchased on its margin, at very moderate prices.

I have a letter from Massachusetts, saying that Colebs had 52 cows at \$10 each.

Ointment for the Mange.—Hogs lard, 2 lbs.; spirit of turpentine, half a pint; oil of vitriol, 2 ounces, to be well mixed; after add brimstone in fine powder, half a pint.

My cattle all take from one to two ounces of salt daily in their food—once in a fortnight, half an ounce of salt petre.

AMERICAN CUTLERY.

We have now before us three pocket or pen knives, made at Pittsburg, and commonly sold in the shops of that city and its neighbourhood—a four bladed knife at 150 cents; a two-bladed knife at 62 1-2 cents.—These are the retail prices, and as low as knives of like quality can be fairly imported and sold at. This is what we did not expect. We have seen knives of Pittsburg manufacture, that cost 5 dollars, which in every apparent quality, rivalled the best products of Sheffield, at a similar amount of price: and excellent razors are also made at the same place. These things are furnished by regular manufacturers. We also observe extensive establishments at New-York, wherein tailors' shears, scissors, penknives and razors, are made and warranted to be of the best quality. One of the great advantages of home manufactures, is the direct responsibility of the manufacturer to the public, which is just as wholesome in itself, in a maker of razors, as in a maker of treaties with foreign nations, or in contracts that involve millions of the people's money.

Birmingham Chronicle.

other will not; and in this lies the difficulty of the explanation; we clearly find a particular kindness or pleasantness in the feel of the one much superior to the other, by which we learn that the one will make fat, and the other not so fat; and in this a person of judgment, and in practice, is very seldom mistaken. I shall only make one more remark, which is, that though one animal will make remarkably fat, and the other will scarcely improve at all, with the same keeping; yet between these extremes are numberless gradations, which the complete judge can distinguish with wonderful precision."

Sir John Sinclair observes, that "Handling cannot easily be defined, and can only be learnt by experience. The skin and flesh of cattle, when handled, should feel soft to the touch, somewhat resembling that of a mole, but with a little more resistance to the finger. A soft and mellow skin must be more pliable, and more easily stretched out to recover any extraordinary quantity of fat and muscle, than a thick and tough one. The rigid-skinned animal, must, therefore, always be most difficult to fatten. In a good sheep, the skin is not only soft and mellow, but in some degree elastic. Neither cattle nor sheep can be reckoned good, whatever their shapes may be, unless they are first rate handlers."

DIRECTIONS FOR RECOVERING DROWNED PERSONS.

The following directions have been published by the Dublin Humane Society:—

"What thou doest, do quickly."

1. Convey the body carefully, with the head a little raised to the nearest convenient house.
2. Strip and dry the body; clean the mouth and nostrils.
3. An adult lay the body on a bed or blanket near the fire or in a warm chamber; if in the summer, expose it to the sun.
4. A child; place it between two persons in a warm bed.
5. Rub the body gently with flannel, sprinkled with spirits.
6. Restore breathing by introducing the pipe of a bellows (where the apparatus cannot be immediately procured) into one nostril, keeping the other and the mouth closed, gently inflate the lungs, alternately compress the breast, and then let the mouth and nostrils free.
7. Apply warm bricks to the soles of the feet, and warm spirits to the palms of the hands, and the pit of the stomach.
8. Persist in these means for three hours at least, or until life be restored.

Cautions.—1. Never to be held up by the heels.

2. Not to be rolled on casks, or other rough usages.

3. Not to allow into the room more than six persons.

4. Not to rub the body with salt.

General Observations.—On signs of returning life, and if swallowing be returned, a small quantity (often repeated) of warm wine and water, or diluted spirits, should be given; the patient put into a warm bed, and if disposed put to sleep.

Electricity and bleeding are never to be employed, unless by the direction of a medical gentleman.

MR. GARNETT'S ADDRESS,

Delivered before the Fredericksburgh, (Va.) Agricultural Society at their late meeting.

FELLOW CITIZENS :

It affords me a degree of gratification which I cannot easily express, to behold so conclusive a proof, as this assemblage presents, that we have at last become sensible of the great benefits which may result to our agriculture from similar meetings and exhibitions, to the one now before us. And I beg leave to avail myself of the present occasion, to offer my cordial congratulations to all my agricultural brethren who may now be with us, on this auspicious commencement of our long meditated Agricultural Shows. It is true, that we have not, nor could we have, for the first time, an exhibition, to be compared with the many highly imposing, and praiseworthy spectacles of a similar character, which have, for some years past, distinguished our sister States, to the North. But we behold enough to afford us great encouragement, and a fair promise of much better things hereafter.

It would be passing strange indeed, at a time when skill, zeal, and industry are pushing on all the other arts of civilized life to their highest state of attainable perfection, if that art, which fills the purse and sustains the sword of the nation ; that art, by which, under God, we all live, and move, and have our being ; which supplies not only most of the necessities, but also of the comforts and luxuries of our existence, should be the only one neglected and despised among us. Yet this has been the fate of our agriculture, until within a few years past. And there are still some among us, I fear, who, in their insatiable reliance upon the innate energies (as it would appear) of their art, or on some other yet more incomprehensible dependence, rest, with folded arms, and drawn as it were within their own shell, without ever spending a thought, moving a finger, or bestowing a cent towards the improvement of this first and best of all occupations. Can they imagine it is all-sufficient to take care of itself, single-handed, and without any concert or co-operation among those who pursue it ? Is it so unlike all other avocations and professions in life, that the insulated powers of each individual, engaged in it, will suffice of themselves to bring it to perfection ? No, my friends, there cannot be a more absurd, nor pernicious notion, than the belief, that each man, for himself, can study and practice any, or all the branches of husbandry, with equal advantage, in seclusion from his agricultural brethren, as if he frequently mixed with them, and sought to realize all the benefits of their experience, as well as of his own. If such belief be not sheer madness, it is, at least, the pitiable folly of those who are far too wise in their own conceit, either to receive, or impart knowledge. As well might we expect, that the plants which are reared for human sustenance, would yield their fruit without human labor ; or that the aggregate products of human industry, exercised in all the infinitely diversified pursuits of life, would be found spontaneous in their present abundance, as that the theory and practice of agriculture can be brought to perfection, or made even to approximate, in any very profitable degree, towards it, unless her sons can be prevailed upon to act more as a body, moving in harmonious concert—at least, in regard to their great leading interests. In other words, they should seek opportunities of

frequently meeting together ; of conferring, consulting, and combining for the general good ; of interchanging the results of individual experience and observation ; of encouraging by joint, but voluntary contributions, such exhibitions as we are now endeavoring to establish, with a view to elicit all that is known among us, in regard to the improvement of stock, of agricultural implements, of the various processes by which the soil itself can be best cultivated, and most effectually fertilized—and, in short, of doing every thing in their power, to elevate, to honour, and to perfect the profession to which they are devoted. With such views and objects, always present to our minds, were we zealously to pursue such a plan, for a few years, and exert, for its promotion, all the agricultural talent and information among us ; instead of the afflicting prospect of deserted habitations, falling into ruins—of fields, once under culture, but now barren, desolate, and rarely trodden by the foot of either man or beast ; instead of frequently having to undergo the pangs of separation from our dearest friends and connexions, compelled to seek, in distant regions, that support which our exhausted soil can no longer yield, we should behold the heart-cheering, delightful spectacle of a moral, industrious, well informed, and happy population, gradually, but continually increasing, in a ratio proportioned to the augmented fertility of our lands, and the consequent expansion and multiplication of our agricultural resources. We should no longer witness the rapid depopulation of several of the good old United States from the operation of that ever restless, erratic spirit, the general tendency of which is, to convert civilized man into a kind of wandering Arab, a stranger to all the endearing associations, connected with the words “ native home ; ” always in search of new pastures for his herds, new forests to subdue, and new fields to wear out, as fast as the process of continually exhausting culture can destroy them. For my own part, I have always been strongly inclined to doubt our moral right to pursue such a course ; for the same general law, acknowledged by all rational men, which forbids us to abuse any of the gifts of our beneficent Creator, and which we willingly obey, in taking special good care of the constitution of our bodies, ought to lead us, I think, also to take care of the constitution of our soil, as an essential means of attaining the first object. A contrary course of conduct, if pursued by all the nations of the earth, would evidently have rendered the whole habitable globe itself, in the course of a few centuries, inadequate to the support of its inhabitants. To improve our agriculture, therefore, is a moral duty, as well as a rational, agreeable and profitable occupation. In a political point of view, there is nothing in this world, the contemplation of which, can give higher animation to the hopes of the true Statesman, and swell the bosom of the genuine patriot with more pleasing anticipations of his country's prosperity and happiness, than the prospect of realizing such a state of society, as an agricultural people may form and maintain, if they will only avail themselves of all the means which are naturally connected with, and grow out of their pursuits, for the promotion of knowledge and virtue ; for the security and beneficent use of property ; and for the permanent enjoyment of the highest degree of earthly felicity, which social man is capable

of attaining.—This, my friends, is no romantic vision ; no picture, the coloring of which is borrowed from an imagination, too sanguine, in regard to what *may* be done, provided only proper means are used, and assiduously applied. It would occupy more of our time than we can now spare, to attempt even a brief enumeration of these means. Let it suffice for the present, that I earnestly entreat you to turn your attention of tender to the objects at which I have merely hinted. There is nothing can afford us ampler scope for improving reflection, nor any thing in which our temporal interests are more deeply concerned.

Although the foregoing speculations may not appear to have any immediate connexion with the purposes of our present meeting, they have been suggested by it ; and as long as I have the honor to be connected with this society, I shall ever deem it my duty, to press similar topics upon the attention of its members, on every suitable occasion. If they serve no other end, they may aid in illustrating the relative importance of the agricultural portion of our people, as a component, and most material part of our great body politic ; in awakening sufficient vigilance, to guard against encroachment on their rights ; and in rendering them more sensitive of the too frequent attempts to legislate them into mere “ hewers of wood and drawers of water.” Not that I mean to charge the authors of these acts with *designing* such an effect ; but if it be really produced, the purity of their motives would be but a poor alleviation of the evil.

Let me now solicit your attention, for a few minutes, to the particular objects of our present meeting ; and to an endeavor, briefly to point out some of the many advantages resulting from such exhibitions ; as well as to suggest a few hints, in relation to the feelings and views of those who attend them—either as mere spectators, contributors, or competitors for distinction.

We all well know the slow progress made by agricultural improvements, and the time which always elapses, before they get into general use. Our scepticism, in this respect, exceeds that even of St. Thomas himself ; for we believe nothing that we hear—and require not only to see, and to feel, before we give any credit to what we are told ; but rarely then, act immediately upon our belief. The History of the Carey or Dagon Plough among us, furnishes as remarkable an instance of this fact, as any that I have ever known. The two first ever brought to this town, remained in the stable yard of the Indian Queen Tavern nearly a year, before any one would even *try* them. During all this time, they lay the objects of doubt and cunning suspicion, to all the knowing ones, each fearing to meddle with them, lest he should render himself a mark of ridicule to the rest, for putting any faith in so ill-looking a tool. And there probably they would have continued for years, if an enterprising Yankee, then a resident here, had not boldly resolved, at every risk, to achieve the perilous adventure of making the first trial. Even after he had demonstrated the merit of this plough, I dare say it was nearly ten years, before it was generally used in all the contiguous parts of the country. Nearly a similar fate has attended those superior ploughs, which have been slowly superseding the Carey. One principal reason, perhaps, of this may be, that after our cobbling Smiths once get into a

y of generally making a new agricultural implement, according to their fashion, which frequently resembles almost any thing better than an article designed to be imitated; a common opinion prevails, that this implement costs us little or nothing, because we pay for it after months, and often years of delay, in some kind of agricultural product—or, because, as it counts an item, in that unlucky thing called a blacksmith's account, it is never paid for at all. There is so wide a difference between *this method* of obtaining our agricultural implements, and *what is emphatically called "actual cash"* for them; that the Solomons of our tribe, who are never surprised into the juvenile indiscretion of being the first to try a new thing—especially if it comes from a distance, and "*costs money*;" can scarcely yet forego the prophetic measure of shaking their wise heads at, and conning to ruin the man who dares to violate this cardinal maxim of *their* rural economy. Nothing is better calculated to banish these ridiculous prejudices; and nothing more facilitates a general adoption of agricultural implements, of every kind, than the frequent recurrence of spectacles of a similar character to the present. For, on such occasions, we become eye-witnesses of most of those inventions, which mechanical skill and ingenuity have devised for our use; and of which, we either might not hear for years; or if hearing, might discredit, provided we confined ourselves, as many do, to our own farms, nearly secluded from all intercourse with our fellow citizens, but such as live next door to us. That mind has never yet been formed, I believe, which could bear such seclusion, without being contracted, and materially impaired by it. Another advantage, and by no means the smallest, evidently resulting from such associations, is, that we learn to appreciate more fully the capabilities of our art, when ocular proof is exhibited to us of what can be effected by those who follow it assiduously, under the influence of those powerful, because *voluntary* encouragements, held out to them by agricultural societies. Hence, we are naturally led to estimate more highly the power, resources, and honorable character of agricultural pursuits, in comparison with any other, instead of undervaluing them, as far too many of us appear to do. Then, in fact, must respect themselves and their profession, to obtain the respect of others. And unless our agricultural people evince their regard for their own occupation, by always asserting the rank to which they have a just claim, on the great scale of national interest, they may count with certainty, upon being degraded, not only in public estimation, but likewise in their own.

As to the feelings and views of those who attend such exhibitions as the present, in the character either of spectators, contributors, or competitors for premiums, I will now offer a few remarks. Of the first, I shall only say, that I take it for granted, they have come well disposed to be pleased with the humble effort made to interest them; and to engage their good wishes, for the success and continuance of our undertaking. In regard to the second, although confidently trust, that we all think much alike on the subject of our institution, yet I cannot forbear to suggest, that, if they notice any thing which falls short of their expectations, they must not too soon be discouraged; nor suffer a

small failure at first, to deter them from another effort to get up a Show and Fair, which shall be worthy of the extensive and fertile country, over which our society has already diffused itself. In one year more, we may hope for such an accession of members, (the annual contribution being only two dollars,) as will considerably augment the premium fund, which we shall zealously appropriate, in the best manner our judgments can devise, for promoting our good cause; and *if we fail*, (a misfortune I will not anticipate,) it shall not be the fault of the Agricultural Society of Fredericksburg.

And now, before I conclude, I must make free to suggest a few hints, for the consideration of those who mean to compete for the premiums which we have already offered.

As our society in making this offer, have been prompted solely by their wishes to promote the general good, they have studiously endeavored, in selecting their committee of premiums, to secure such awards as will be equally disinterested and exempt from all local or partial considerations. Should any individual competitor, therefore, be inclined to question the correctness of their decision in this particular case, I must be permitted to express my hope, that he will deem it better, silently to acquiesce in a determination which, although it *should be* erroneous, *cannot* proceed from any but correct motives; rather than impair the utility and general good effect of agricultural premiums publicly awarded, by arraigning either the judgment, or the equity of men, who must necessarily decide right in many more instances than they determine wrong. We cannot expect those who fail to obtain rewards to be equally pleased with those who gain them; but we *may & do* calculate on the competitors for our premiums being true and genuine friends to the cause of agriculture. And *if they are*, we can rely fully on those who may be unsuccessful, making all due allowances for their respective failures; so far at least as to acquit our committee of any design to thwart their particular efforts to gain the prizes at which they have aimed. I feel the more solicitous on this subject from my anxious wish that in this our first attempt of the kind, no circumstance should occur, either to produce disagreement among ourselves; or to throw the slightest obstacle in the way of our future exhibitions. Not that I fear either the competency or inclination of our committee to decide correctly: But the same thing *may possibly* happen here, which I see by the public Journals has taken place in one of our sister states; and I would willingly guard against it by a timely caution. The case alluded to, is one of an individual, *evidently interested*, coming forward to arraign either the judgment, or the justice, or both together, of certain judges, as *evidently disinterested*, who were selected by one of our sister societies to form a committee of premiums. This being a common cause to all agricultural societies, I must take the liberty to offer one or two general remarks prompted by the occasion. Any such instance of palpable selfishness, so far from engaging public sympathy, cannot fail to excite unqualified disapprobation. The public, whose sense of justice, will always lead them to right decisions in the end, will never take part with an individual who complains of what *he only* conceives to be an injury, and that to *himself alone*, in opposition to

the decision of numerous and obviously *impartial arbiters*, who are so circumstanced, as to have *no possible interest*, either direct, remote, or contingent in deciding against him. At the worst, such a decision can only be an insulated, and single mistake, unaccompanied by any of those general consequences, which threaten injury, either to the community at large, or to any portion thereof, considered as a separate class.

I must now, my friends, bid you farewell. We have all met, as I sincerely trust, with feelings such as should ever govern men engaged in a common cause, and bound together by the ties of a common interest. Let us all part in the same spirit, to meet again, twelve months hence, with increased hopes and wishes for the prosperity of our Agriculture, as the true basis, and best security for the permanent welfare and happiness of our beloved country.

TO THE EDITOR OF THE NEW ENGLAND FARMER.

I was pleased to see in thy paper of Nov. 16th, a demonstration that my rule for gauging is true. The rules of the author of that piece are ingenious and correct, yet far more tedious than the mode by which I discovered my rule, which I now consider myself in duty bound to explain and render intelligible to any person, master of the common rules of arithmetic.

I must first premise that it is demonstrated by Euclid that the contents of all circles are in proportion to the squares of their diameters.

Second, that any *division* may be performed by *multiplication*, and frequently requires fewer figures. The performing of division by multiplication is founded on the neutral properties of an *unit* or *one*, which none of the authors on arithmetic appear to have explained, or perhaps fully to have understood;—for to multiply one by one, or to divide one by one, the product and quotient will be the same; therefore as one can neither be increased nor diminished by multiplying or dividing by itself, it is a stationary number in either rule. For instance, suppose we wish to divide 8 by 2, by multiplication, divide 1 by 2 and the quotient will be .5—then multiply 8 by .5 and the product will be 4, and the same rule will hold equally good in any larger numbers. Then as it is proved by Euclid that the contents of all circles are in proportion to the squares of their diameters; say by the plain Rule of Three, as the content of any circle is to the square of its diameter, so is 231, the cubic inches in a gallon, to 294, the number to divide by to find the gallons, if we take the square of the diameter in place of the content of the circle—but as 294 is a tedious number to divide by, perhaps the division would be more readily performed by multiplication; therefore divide an unit or one by 294, and you have .0034 for a quotient to multiply by to find the true content.

As the ingenious gentleman "*Hhd. alias 4 Bbbs.*" has demonstrated the same thing in a very different and more tedious manner, it appears that we are both correct, and I would wish for a further correspondence with him on various Theorems, not doubting but many useful rules may be discovered, more short, plain and easy than what they have been laid down by European Authors.

SAMUEL PRESTON.

Stockport, Pa. Nov. 29, 1822.

From the New-York Statesman.

TO WOOLLEN MANUFACTURERS.

I beg leave to inform you that a bed of excellent Fullers' Earth has been discovered on the margin of the North River, in the State of New York. As this article has ever been considered a grand desideratum in the Woollen Manufacture, I congratulate you on the discovery, and more particularly that it is owned by an individual who possesses so much liberality as to offer it for sale in this city,* at the same price it is sold at in the manufacturing districts in England—thus placing you, so far as this article is concerned, on a par with European manufacturers.

As it is presumed you are mostly unacquainted with its use and value, I have, for your information, added a statement of the mode of applying it, and the advantages to be derived therefrom.

You must be aware that Fullers' Earth is the only material with which coloured cloth ought to be cleansed, as well black as blue; and that before cloth is coloured in the piece, it is absolutely necessary to use this article to prepare it to receive the dye. You may not, however, be equally aware that the superiority of the colors imported from Europe, are in a great degree attributable to their using this earth, after the manner hereinafter described.

Fullers' Earth, when dry, if good, should be smooth and slippery like soap: It should not perfectly dissolve in water, but when immersed in that fluid in a dry state, it falls so as to assume the appearance of suds, and on rubbing the hands with it in this state, it ought to be free from grit and perfectly smooth. Its use on cloth, is first to clean all the soap and grease out after braying and before fulling, and to cleanse the color and soap out after fulling. In coloring of cloth it is ever used to prepare it for the dye, and to cleanse the color after dyeing. Earth is not only the best agent with which to perform these operations, but what is equally important, it is the cheapest of any, as it will be sold at one dollar per one hundred pounds.

On cleansing of cloth previous to and after dyeing.

Many of the minor operations in a factory, which those who are not well versed in the business are apt to neglect as of little or no consequence, have an important bearing on the well-being of the whole. Such are the operations I am now about to describe; and I am sorry to have to observe that they are too generally neglected in this country. I must remark (and it cannot be too forcibly impressed) that to clean cloth well from grease and other extraneous matter, previous to dyeing, is a necessary preliminary to the production of good colors, and to cleanse them well afterwards, is equally necessary to the maintenance of the manufacturer's reputation.

Blue, black, and other dark colors, are steamed before they are carried to the fulling mill; they are then taken to the stocks and washed under the hammers; until the water runs clear from them, when they are taken out and hung upon long wooden pegs (placed in the walls of the building) till the following day; they are

then taken down, spread open, and wet Fuller's Earth thrown all over the face; the lists are now thrown together, and they are carefully placed in the stocks, which are plugged up, and the hammers let down, and permitted to play on the cloth, without water, for half an hour or forty minutes; the cloth is then handed out, the lists pulled square, and the earth spread even on the cloth, and more Earth added if necessary; the cloth is then put again into the stocks, and the hammers suffered to play upon it one or two hours, after which a small quantity of water is let run into the stocks; not more than would pass through a large wheaten straw, for one hour, in order that the Earth may be diluted slowly and by degrees. After that, the cloth is once more handed out, the lists pulled square, then put again into the stocks, and the plug pulled out, when a sufficient quantity of water is introduced to make it perfectly clear. During the last operation, it is to be from time to time handed out, in order to prevent its taking a wrong position in the stocks, and being torn.

The water that comes out of the stocks shows whether the cloth is clean; for that which runs out ought to be equally as clear as that which runs in.—If on trying the cloth, you perceive it still soils, it must be worked with Earth a second time. River or clear rain water is the best to mix with the Earth, and spring water for washing it out.

To prepare cloth for dyeing, it must be worked with Earth as before directed, only when it has gone the first half hour in the Earth, a small stream of water is let run in for half an hour, and then a full stream, until it is quite clean.—The handings out, as before directed, must be observed. Many people color their blacks after fulling, without scouring with Earth; but the colors will not be so good, nor will they clean so well afterwards, because there will always remain a portion of the soap in the cloth, which washing with mere water will not detach from it, and when this comes into the black liquor, or any other dye, the soap will be decomposed; the soda will be combined with the acids, and the grease being liberated, will produce an effect equal to the coloring of greasy cloth.

On cleansing of cloth from its grease in the flannel.

In general, urinous liquor and water are sufficient to clean a cloth from its grease in the flannel after it is woven; but when the wool has not been properly scoured from its yolk, or filth, or when the cloth has been manufactured, a great while, it is necessary to add to the urine a solution of Fuller's Earth, and to do it sometimes two, three, and even four times over, notwithstanding which it is almost ever necessary to work such cloth twice more with Earth prior to fulling; but this is done only after it has been buried.

It is important that cloth should be thoroughly free from grease before it be fulled; for soap which softens grease, but does not dissolve it, forms with it a clammy substance which adheres very strongly to the cloth, and is scarcely ever to be removed by any subsequent operation.

When cloth has been fulled, it has to be washed clean from the soap, and this apparently simple operation cannot be effectually done without Fullers' Earth. Those who have never scoured wool-dyed cloth, after fulling, as the final operation, can have no idea how much the

beauty and intensity of the colors is thereby improved.

Being aware of the disadvantages the woollen manufacturers were laboring under for want of good Fullers' Earth, and suspecting there must be plenty in the country, I last spring handed paper to the editors of the Statesman, requesting samples might be sent to their office to be inspected by a person who was a judge of the article. Numerous samples were sent, among them I consider that which is now offered for sale, as the best. After trying it on small scale, I had a box of it sent to an experienced English fuller to try it on cloth, and pronounced it to be of a superior quality.

The next best sample, and in fact the only other one that was Fullers' Earth, was sent by gentleman from Virginia. This was of excellent quality; but between every layer there was deposited some coarse sand, that would have to be separated by solution, before the Earth could be used. I am informed there is an inexhaustible quantity in the beds from whence the sample was taken.

I mention this fact, to prove that there never will be a deficiency of the article, and to inform manufacturers that should the supply from thence ever fail, I shall be ready to give them instruction (if they need it,) how to separate the grit at a very easy expense.

Editors of papers who are desirous of promoting the manufacturing interest, are requested to give this an insertion.

W. P.
New-York, Nov. 20.

FOR THE NEW ENGLAND FARMER.

MR. EDITOR,

I saw with no small degree of surprise and regret, the Communication under the signature of "A Member of the Berkshire Agricultural Society," in your paper of the last week.

Your correspondent had not a correct knowledge of the facts, or his good sense would, trust, have placed a more favorable construction upon the feelings and principles which animated the associated agriculturists at the Worcester Cattle Show; at least I might have relied upon his justice and candor to have spared me this intrusion upon your readers. But my apology for repeating, what must be considered as having too little interest, or novelty, is the duty I owe to the Massachusetts Society for the promotion of Agriculture, whose organ I became and what is due to my own discretion; but more especially to the Berkshire Agricultural Society whose merit and exertions I highly estimate and upon whose good opinion I set too high a value, to submit to its silent forfeiture. I am charged in effect—first, with arraying myself as the organ of the Society in the garb of proffered compliment; and secondly, in having forgotten the honorable distinction to which the Berkshire Society was entitled. I should blush to think I did either, and appeal to the following facts for support.

As passing to the busy scene, it was requested of me by my associates of the committee, that if the Worcester Society should honor the Massachusetts Society in a toast, that I should respond thereto. Such notice was taken, in a manner highly hospitable, courteous and polite, in the following toast:

* The bed from which the earth is obtained, is owned by Mr. Chrystie, of Fishkill-Landing, and is sold by a person of the same name, who keeps an earthen-ware store in Maidenlane.

"The Massachusetts Agricultural Society—The soul which animated 'the Heart,' and which is infusing life into the extremities of the Commonwealth."

However gratifying it was, to be supposed as to deserve, and however honorary and distinguishing the compliment from such a source, as the Massachusetts Society had never made any claim for the ascription of so high praise; but on the contrary, at their first Address at Brighton, by a distinguished officer, and all their proceedings, had most gratefully acknowledged the successful efforts and co-operation of the County Societies, it was deemed both just and proper to make such observation as might indicate a due sense of the compliment contained in the toast, as well as of the polite manner in which it was introduced, and point to the County Societies as the sources in which this "animation," so gratifying to who delight in the prosperity of agriculture, is essentially derived. The toast, therefore, given in response, was with this view, preceded by the following remarks.

The Worcester Agricultural Society was constituted upon the respectable assemblage of individuals who were with such zeal engaged in the promotion of its objects.

Upon the very gratifying display which to the honor of the Society had been offered for exhibition.

And upon the happy results which such a state of things gave the community a well founded right to expect, in the advancement of the Agricultural interests of the state.

In reply to the notice which they had seen fit to take of the Agricultural Society of Massachusetts, it would be recollected that whatever success had arisen by their exertion, the praise belonged to the agriculturists of every part of the Commonwealth.

But now that the several county societies are so zealous and so distinguished in their several spheres of exertion, it was to their co-operation that the Massachusetts Society and the country at large might well look with confidence. I have a right to expect the most auspicious results.

The expression of a wish for their future prosperity, introduced the following toast:

The Worcester Agricultural Society—May their success be commensurate with their zeal, intelligence and patriotism."

I hope, in this explanation, to have satisfied a member of the Berkshire Society" that I did not forget, but had fully in mind the "honorable distinction to which the Berkshire association was entitled." The praise so ardently bestowed by Mr. Lowell, in his Address, and so emphatically quoted by your correspondent upon the vigor and intelligence of the Berkshire Society as having been productive of great emulation of improvements in Agriculture," most indisputably evinces the respect entertained by the Massachusetts Society for that of Berkshire. The recommendation of "prudence, caution, delicacy, and circumspection," is of high authority and should have great weight.*

A generous emulation must produce the best effects; but a jealous rivalry will place all at hazard. To produce the former, will be the plan of the Massachusetts Agricultural Society; and, as your correspondent declares, "it is not his intention to provoke any collision or inauspicious rivalries among citizens and societies devoted to the same great and useful pursuits."

President Adams' Letter.

It is hoped that this explanation may give him satisfaction, and his zealous efforts come in aid of what constitutes the interest of each and every society, the common welfare and happiness.

I am respectfully, Yours, &c.

JOHN WELLES.

THE FARMER.

BOSTON:—SATURDAY, DEC. 21, 1822.

CONGRESSIONAL.

After the standing committees were appointed according to custom, the long agitated subject of the claim of Baumarchais was referred to a select committee of five.—The Rev. Mr. Breckenridge, of Kentucky, was chosen Chaplain of the House after five ballots.—A Message was received from the President relative to the outrages and depredations of the Pirates in the West Indies, and the Gulf of Mexico, exemplified by the death of a very meritorious officer, recommending the employment of such public vessels as are capable of pursuing them into the shallow waters to which they retire.—Another Message was received from the President, on the subject of the Christian Indians in Ohio, and the lands granted to them; and a report on the public buildings was communicated and committed.—A bill respecting the disbursement of public moneys reported the last session was called up, debated upon, and ordered to be reprinted.—A number of bills were introduced and some progress made with them, among which were a bill granting relief to certain citizens in Michigan, who had expended property in relieving captives taken by the Indians in 1813; a bill to provide for the national defence by improving the militia of the United States; and a bill for allowing the widowed mother of Lieut. W. H. Allen, a half pay pension for five years.—A plan for the peace establishment of the Navy was communicated by the President.—A resolution was adopted requesting information from the President respecting advances of money to public agents.—A resolution was passed requesting information from the President relative to the Porto Rico expedition.—On the 13th the bill for the suppression of piracy was read a third time and PASSED without a division, and sent to the Senate for concurrence. This bill authorizes the President to purchase or construct a sufficient number of vessels in addition to those now employed, of such description as he may deem necessary, and to fit them for the services of repressing piracy, &c. and the sum of \$160,000 was appropriated for that purpose.

FARMER SUMMARY OF NEWS.

On Monday last, the trial of Mr. Joseph T. Buckingham, indicted for publishing an alleged libel in the Galaxy, on the Rev. John N. Maffitt, commenced before the Municipal Court. Counsel for the Defendant, Mr. Hooper of this city, and Mr. Hallet of Providence; and the County Attorney, Jas. T. Austin, Esq. for the prosecution. The learned Judge decided that in all cases of indictment for printing a libel, our constitutions secured to the defendant a right to give the truth of the allegations in evidence, to exonerate him from the charge, and that although the County Attorney had granted that permission, he could not claim it by virtue of such grant, as it was due to him by the laws of the land. The examination of witnesses occupied the whole day; in the evening the counsel on both sides were heard, and the Court adjourned. Tuesday morning, Judge Quincy gave the cause to the jury in an eloquent and impressive charge. He divided the charges in the alleged libel into five, to wit: 1. Accusing Mr. Maffitt of falsehood—2. Of infidelity—3. Of betraying confidence—4. Of ridiculing persons who came to the altar—5. Of light, loose and lascivious behavior, and stated the evidence on these points, and directed the jury, if they were satisfied that the truth of these charges was established, and that the publication was made for "a good motive and justifiable end," the defendant must be acquitted; otherwise he must be found guilty. The jury went out at 11 o'clock, and after being absent five hours without agreeing, came in, and inquired of the Judge, whether if in their opinion some of the allegations were proved by defendant, and some were not, they should acquit, or convict the defendant?

The Judge repeated to them a part of his charge to this effect: That if the allegations proved were in their opinion of such a nature, and of such high importance as to authorize the defendant to attack the character of the person with a view to benefit the public by exposing him, then defendant ought to be acquitted. The jury retired again, and in a few moments returned a verdict *Not Guilty*. A full length report of this trial will, we understand, be published in a few days, by Mr. Buckingham, in a pamphlet form.

The last advices from Spain represent the constitutional system as advancing with a fair prospect of securing the happiness and independence of the nation.

Morales, the Spanish General, has published a proclamation condemning to the gallows, or some worse punishment, all strangers found in any way aiding the patriot cause, even as merchants residing in the country. This has been animadverted on with much acrimony by the Governor of Curacao.

A House of Industry has lately been constructed in South Boston, is nearly completed, and is a spacious commodious and elegant structure. It cost about forty thousand dollars.

A fire took place at Cincinnati, (Ohio) on the 26th ult. which destroyed a range of old buildings, heretofore well known as Dickey's tavern.

A bill has been introduced before the Legislature of Georgia, "to establish and endow a public seat of learning for the education of females."

A young girl was instantly killed in Philadelphia last week by a stone carelessly thrown by a boy in the street.

Last week, at the S. J. Court, Nathan Severance, of Charlestown, was found guilty on three indictments of passing counterfeit money in Marblehead, and sentenced to four years hard labor in the state prison; his brother Joel, connected with him, and considered the principal, had before been sentenced for life. John How, for stealing a horse and chaise at Gloucester, was sentenced for 18 months.—*Salem Gazette*.

Distressing accident.—On Saturday last (says a Baltimore paper) a young lady, while standing by the fire place unfortunately approached so near the fire that it communicated to her dress. There being no one in the room with her but small children, her attempt to gain assistance by leaving it, served to increase the flames—and before the fire could be extinguished she was burnt so severely that her survival is in consequence rendered very uncertain. The distressing effects of this accident shows that females cannot be too cautious in guarding against it.

An Institution for the Deaf and Dumb has recently been established in Pennsylvania.

A duel was fought on the 30th Nov. between Wm. Cumming, of Georgia, and a Mr. McDuffie, of S. Carolina, in which the latter had his arm broken.

Hay, in large quantities, has been transported from Pittsburgh to New Orleans, where it affords a handsome profit.

New Inflammable Gas.—A short time since a person in this city received, from a gentleman at Springfield, half a barrel of pickles. They came to hand in the evening, and being desirous of looking at them, he took out the bung, when, to his consternation, the moment the air from the cask came into contact with the blaze of a lamp, that was held, it took fire, and continued to burn till the bung was replaced.—*Palladium*.

A New York paper says a live Hog is now on board a sloop at a wharf in that city, which weighs 1465 lbs.

The fever at New Orleans has nearly subsided, and the citizens are daily returning.

James J. Wilson, Esq. of Trenton, (N. J.) Editor of the True American, and member of the legislature of that state, on the 9th inst. in a delirium, conceiving his house to be on fire, threw himself out of a two story window, and by the fall broke both of his legs above the knees, and received other injury. His life is despaired of.

A Challenge.—A Virginian proposes a wager of five hundred dollars, that he will exhibit, at the Maryland Cattle Show, which may be held near Baltimore in the year 1824, a native Bullock of Virginia, of greater net weight than any that can be exhibited at the same time and place, by any New-Yorker, whose Bullock shall be a native of that State.

BY T. G. FESSENDEN.

Some of the following lines are altered and paraphrased from certain passages in a poem, entitled, "THE FLEECE," the production of Dyer, a British poet.

The advantages of industry illustrated; houses of labor recommended, and vagrants invited to accept of such asylums.

Not only man but nature lives by toil,
Beast, bird, the elements, and rolling worlds
Exist by action; nothing lies at rest
Save sluggards, death and ruin. Man is born
To care, and toil must nurture him, or else
His powers and faculties will never ripen;
Nouage will on the heels of dotage tread,
And the poor biped will remain a child
Through every stage of sublunary being.
Wise states of yore, observing this, ordain'd
That rich and needy, high and low, be doom'd
Alike to labor; and they often call'd
The rugged chieftain from his plough and fold,
From ruling brutes to rule the commonwealth.
Utility was then the test of merit
Throughout all ranks. Then exercise gave health,
Corporeal strength, and force of intellect.

We owe to toil whatever raises man
Above the wildest quadruped that roams
The wilderness. Corn, wine and oil,
The cottage and the dome, the joys of life,
Are fruits of industry. What nature yields
(And she performs her part) are mostly rude
And raw materials, to be form'd by skill
And industry, which fashion them to wealth.

To idle want and vagrant vice, the means
Of doing good true charity supplies,
Means wherewithal to benefit themselves,
And serve the common weal, by useful toil.
In every village charity should raise
HOUSES OF LABOR—seats of kind restraint
For those who wear out life in fruitless sports,
And idleness, the harbinger of want;
Who each employment sedulously shun,
Which honest wealth might yield, and something due
By all to all, and public weal subserv.
Ye vagrant poor, who ramble to and fro,
Like gipsy-hordes, and him who tempted Job,
Who haunt the dwellings of the diligent
For sustenance unearn'd; who ramble wide
From house to house, with mischievous intent,
Feigning disease, with false and woful tales
Of dire distress, and ye whom real want
Has bowed like rushes, which the torrent sweeps—
Who tread the rough high way without an aim,
With painful step, and bitterness of heart,
Gaunt children of affliction, do not shun
The path which terminates in all the bliss.
Which charity can with discretion yield;
Let not false pride predominate, but turn
Your step-sworn feet to gentle friendly toil.
The loom awaits you, and the spinning wheel,
The adze, the awl, the implements of art,
Which plied with diligence will put dull care
And carking reminiscences to flight.
Here may you rest and place your pillow here,
Safe from the peltings of the pitiless storm,
Pure beverage, wholesome viands shall be yours—
To heal each sickness the physician waits,
And priest invites to give your Maker praise.

Regard the world with cautious eye,
Nor raise your expectation high,
See that the balanc'd scales be such,
You neither fear nor hope too much.

Support of Paupers.—The system of having a work-house, with land adjoining, where the paupers may do something to support themselves, has been adopted in many places with the most satisfactory results. The Christian Register says that the managers of the pauper establishment in Cambridge have paid \$80 into the town treasury, after defraying all expenses of the establishment for the past year.—*Pittsfield Sun.*

From the Trenton Emporium.

March of Improvement.—A dozen years ago only, and a trip from New-York to Norfolk, was considered an undertaking of no small magnitude—a journey of very uncertain termination—now you step on board the steam boat in New-York, and are safely landed in Norfolk in a couple of days. Formerly, before a voyage to Havana, there was an invariable closing of contracts, arranging of business, drawing out and executing of wills, mournful farewells and letters written back by the pilot boat—now it is a neat little pleasure jaunt—its hardly worth while to bid good bye—just going down to Havana. And some think we shall soon travel over land as nicely as we do over water—Oliver Evans used to say that the time was coming when a trip to Pittsburg would be but a pleasant excursion—and when steam should supply the place of horses.

Recipe for making a pound of Fire Wood save a cord.—From the end of a small, straight grained stick, saw off a pound, and split it into as many pieces as it will admit for the purpose designed. Make each piece into the form of a wedge, and place one of those wedges between the casing and the top of the lower sash, wherever the wind enters between the sashes.—*Boston Gazette.*

Singular Phenomena.—About two tons of refuse iron, consisting of filings and shavings, were deposited in a wooden store near this village. By accident, a few quarts of linseed oil was spilt on the heap. In about three weeks after this occurred, a person walking over the mound perceived it to be very sensibly warm. In opening it, a great part of the interior was discovered to be heated to redness! The iron was free from sulphur, which is known to inflame spontaneously with iron.—*Taunton, Ms. paper.*

Corsicaurum.—A new mineral earth has been lately found in Corsica, thought to be impregnated with particles of gold. By chemical operation, vases have been made of it for table services, and it is found to vie in color and lustre with the finest vermilion. The name of Corsicaurum has been given to it; it has the property of not discoloring white stuffs, which is not always the case with gold, the most purified and refined.—*N. Hampshire Repository.*

The celebrated Englishman, Capt. Cochrane, who is famous both in and out of Europe, for his long excursions on foot, and has been for two years engaged in such a tour in Siberia, to discover whether in the Northern Latitudes there is any connection between the continents of Asia and America, has married in Kamtschatka, a native of that country, and is now on his return. He has not found any junction of the two Continents.—*Hamburg paper.*

NEWPORT, (R. I.) Dec. 4.

The remarkable propensity of cats, in sucking the breath of infants, has often been spoken of, and has been considered by many as fabulous; but an instance occurred in this town, last week, which should put parents upon the guard against this danger. The mother had the infant in the care of a domestic—on her return, she was informed that the cat was found with its two fore paws fast encircling the child's neck, and its mouth in that of the child, which was nearly suffocated; and great exertions were necessary to extricate the helpless little sufferer from its perilous situation. The story was not much heeded by the mother, but what was her horror on being awaked in the night, by the convulsed struggling of the infant, and finding the same cat, in the same position, and the child again reduced to nearly the same extremity! The cat was immediately thrust out of the window—and so much eagerness did she manifest to return to her victim, she brooded through a pane of glass to effect her object. It was not until the cat had made the third attempt on the following day that she was put to death.

From the Westchester Herald.

Rain.—Few persons are aware of the immense quantities of rain which descend from the clouds in a certain space of time. Last Wednesday night, it was ascertained that the rain fell to the depth of 8 inches. Now it follows, if we suppose our county contains 500 square miles, that the rain was equally plentiful throughout the county, that nearly 1200 millions of hogsheads of water must have been poured upon the surface in that night only. Hence if we calculate the Tappan sea to cover a surface of 500 square miles, and that the water is 24 feet deep upon an average throughout the whole body it appears, that nearly as much water was discharged from the clouds on Wednesday evening in this county alone as would fill the whole space occupied by the Tappan sea. This estimate may be amplified to any extent, and it proves how vast is the divine power and benevolence; and how trifling and contemptible are all the works of man in contrast only with the most ordinary acts of God in his provident government of the world!

From the Farmer's Calendar for 1823.

Useful Hints.—"Sir, asked a young man, would you be so kind as to measure this load of wood? My father has sold it to Mr. Crispin, the shoemaker. Father says there is a good cord, I make. Mr. C. says no, and they have left it to you." "Well my lad, there is just about six feet of it. It is almost every stick too short, and I can see there are some hollow places in it, and now it is a rotten stick tucked in."

Who comes here! Oh 'tis Capt. Thrifty! He never goes to a tavern or grog-shop to lay stores for Sunday. Whatever he does is done quickly and then he is off. He treats no friend at the tavern or retailer's cup. No morning dram, or eleven o'clocks for him. He has plenty of good beer and cider. He never contracts more than he can pay in season. He pays no interest, because he pays the principal and thus saves the expense of suits, and the vexation contending with his neighbor.

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No. 22.

DISEASES OF CATTLE.

BY THE EDITOR.

In our paper of Nov. 16th, No. 16, p. 126, we proposed "to give articles from the most approved authors, relating to the diseases of cattle, horses, swine, sheep, &c. and we now proceed to carry that proposition into effect.—We would premise, however, that we have no knowledge of this subject derived from practice, and shall merely select such articles as we think may prove useful, from treatises, which appear to have been correctly and judiciously written, and have met with the approbation of men of science on both sides of the Atlantic. We shall sometimes alter the language of the authors, whose ideas we may adopt, for the sake of brevity, and to make the subjects plain to readers who are not acquainted with medical and anatomical terms; but we hope to retain the meaning whenever we vary the phraseology. We shall, occasionally, intersperse our extracts with remarks of our own, derived, principally, from conversation with practical farmers, and others, who possess the kind of knowledge which is most to be relied on, to wit, that which is derived from experience. We are fully sensible of the importance of the subject, and know that improper prescriptions may not only cause the loss of much valuable property, but may subject many poor animals to cruel as well as absurd treatment. We shall therefore assert nothing relative to the symptoms or cure for diseases of cattle which is not supported by respectable authority; and should we be so unfortunate as to lead our readers astray, it will be owing to the fallibility of the most competent guides we could find to direct our course.

The following observations by Mr. Lawrence, an English writer of reputation, might very well precede every treatise on Cattle Medicine or Farriery. "It should be considered that animals, living in a state of nature, regulated by the reason and experience of man, might be wholly exempt from disease—that their appetites, unlike our own, may be held under constant control—that their diseases result purely from the negligence or erroneous treatment of their owners. They are either exposed too much to the rigors and changes of the weather, or they are gorged with food, denied a sufficient quantity, or supplied with such as is unwholesome. Here we learn the chief causes of their maladies. LEARN TO PREVENT THEM, instead of undertaking the tedious, unsuitable, and often hopeless task of learning to cure them. I have no infallible receipts to offer; on the contrary, I wish to impress my readers strongly with the idea, that all *infallible receipts are infallible nonsense.*"

Inflammatory Fever, or general Inflammation; called also Quarter Evil, Black Quarter, or Spud.—This disease frequently happens to young cattle, generally between the first and third year, most commonly about the second year of their age. It appears to be occasioned by feeding them too hastily; by putting them, when in a lean state, into rich succulent pasture.

The animal when seized with this complaint,

becomes suddenly listless and stupid; he hangs down his head, refuses his food, and appears to move with difficulty. Swellings soon appear in different parts of the body, which, when pressed by the finger, make a crackling noise. Sometimes the joints are particularly affected; at others, the swelling appears on the back, shoulder or belly.

The disease attacks rather suddenly; and often proves fatal, particularly when proper remedies are not speedily employed. Bleeding is the first remedy, and must be proportioned to the age and strength of the animal; perhaps from three to four quarts will generally be found sufficient. The blood should always be measured. The following purgative should then be given.

Aloes	-	-	-	3 dr.
Potash	-	-	-	2 dr.
Sulphat of Soda [Glauber's Salts]	-	-	-	6 oz.
Warm Water	-	-	-	1 pt.

Mix for one dose.

This dose will generally be found sufficient for an animal of two year's old. Should the disease occur in situations, where these medicines cannot be procured, give from four to six ounces of common salt in a pint of water; the addition of four ounces of castor oil, sweet oil, or even linseed oil, will make it more efficacious. Should the animal be relieved, by this treatment, considerable weakness may follow; for which give the following twice a day:

Powdered Caraway seeds,	1 oz.
Ginger	-
	2 dr.

To be given in a pint of oat-meal gruel [or any other gruel] or ale.

The swollen parts, particularly if the joints are affected, should be rubbed with the following liniment:

Take of linseed oil	-	4 oz.
Oil of turpentine	-	2 oz.
Liquid ammonia, or spirit of sal	-	
ammoniac	-	1 oz.

Mix.

Mr. Lawrence has very properly advised that a piece of short or inferior keep should be reserved, as a digesting place, where cattle may occasionally be turned, to empty and exercise themselves. This is better than bleeding, or any medical preventive; and as this disease frequently proves fatal, preventive measures should never be lost sight of.

Murrain or Pest.—These terms correspond with that of plague in the human species, (and the diseases are said to have a similar origin, to wit, in putrid miasmata,) and like the plague is attended with boils or buboes. The plague of horned cattle is said to be of a peculiar nature, and not communicable to other animals. Yet in a contagious disposition of the air, it may chance that various species of animals may be affected at the same time. The infection is first denoted by a decrease of appetite, difficulty of swallowing, shaking the head, hanging down of the ears, and dulness of the eyes. Constant diarrhoea, or scouring, foetid breath, nauseous steams from the skin, infecting the surrounding air. The blood is florid, hot, and frothy, and

the urine high colored. Roof of the mouth ulcerated. Tumors or biles are felt under the fleshy membrane of the skin; eruptions all along the limbs, and about the bags of the cows. Milk dries up suddenly. The animals groan much, and are worse towards evening, mostly lying down. These symptoms continue increasing until the seventh day, in which, generally, although sometimes protracted to the ninth, the crisis or turn takes place.

Dr. Darwin proposes, when this distemper makes its appearance, to slaughter all the cattle within five miles of the infected place, which appears to be a very harsh mode of proceeding; and although "death's a cure that never fails," such a remedy is commonly thought to be as bad as the disease. Mr. Lawrence advises, on the appearance of the distemper, to place the whole herd under the best shelter that circumstances will allow; to separate those which are in the most advanced stage of the disease, and slaughter such as good judges shall deem to be in a state too dangerous for any attempt to cure, and bury them pretty deep in the ground. In a disease so highly putrid, bleeding should be moderate, yet in the beginning, he thinks it will be necessary, as also scotons and rowels. "If costiveness prevail, the body must be kept open by clysters, or the most moderate purges, but a scouring is the most usual symptom. The sick-house must be sufficiently airy, yet well defended from wet and cold. Acid fumigations will purify the atmosphere of the house, and probably the fumes being inhaled by the beasts will have a favorable effect."

"The *emphysema*, windy abscess, or puffing up of the hide, filled with a thin putrid matter and foul air, which nature furnishes in the last stage, as a mean of throwing off the disease, must be opened at full length, wherever situated, and the matter discharged. The cavity to be filled with pledgets of tow, dipped in tincture of myrrh, or of an ointment composed of powdered roentine and yolk of eggs. Poultices of oatmeal, stale beer, &c. may be necessary to bring the ulcers to a proper digestion. Nitre has, of late, been successfully used in gangrenous ulcers, the cavities being filled with it. The approach of mortification is indicated by the dark and flabby appearance of the inside of the mouth, coldness, insensibility, blackness and ill scent of the dung, sanious and foul discharge from the mouth and nose, and dulness of the eyes. On the return of health, mild, cleansing purges will be necessary, but the danger of mortification must be fairly passed. The recovered beast must not be suddenly exposed to the air, but only turned out a few hours in the middle of the day, particularly throughout winter. Sudden exposure has subjected many convalescents to a vertigo of giddiness, and to consumption."

M. Sauvages, the celebrated professor of Medicine at Montpellier, was an accurate observer of this disorder, when it raged with great violence in many parts of Europe. He calculated that of twenty who were attacked by it nineteen died; that no certain remedy had been

discovered, or any effectual mode of preventive, except separating the healthy from the sick; he recommends, however, bleeding and purging at the commencement of the disorder, with sections in the dewlap. After the operation of the purgative, he considers opiates, aromatics, &c. such as caraway seeds, ginger, cascarilla, &c. as the most proper medicines.

A writer in the Gentleman's Magazine, quoted with approbation, by Dr. W. Peck, a late learned and judicious writer on veterinary medicine gives the following directions to prevent and cure the disease.

First. Avoid the infection with the utmost diligence. *Secondly.* Trust to none of the celebrated remedies that may be proposed to you, unless founded on experience; most that have been offered by farriers are known to be ineffectual, and many of them extremely injurious. *Thirdly.* If your cattle are attacked, bleed plentifully, repeatedly, and keep their bodies open. *Fourthly.* Give them no dry meat from the commencement of the attack till the fever abates; let their mashes be thin, given warm, and very often, a little at once; keep them dry and warm. *Fifthly.* Give no warm spicy drenches, at the commencement of the disease.

The following extract from an English work is illustrative of the infectious nature of this disorder.

"A farmer in Essex, who had the distemper among his cows, invited a neighboring farmer to come and assist him in giving drenches to some of his sick cattle; the good natured man went accordingly and spent the best part of the day with his neighbor, to lend him his help in distress, little dreaming of the ill consequence of being so many hours with the diseased cows; so much of the infectious effluvia adhered to his clothes, that, as he was walking home, though a mile and a half, through a field in which several of his cows were feeding, he no sooner entered, but they left off grazing, ran to the further end snorting and flinging up their noses as though they smelt something very disagreeable; and so indeed it proved to them, for the very next day, many of them fell sick, and died in a few days."

(TO BE CONTINUED.)

From the Plough Boy.

MR. SOUTHWICK,

It appears from our statute books, that our state has appropriated about one and a half millions of dollars, for the benefit of colleges and academies. This amount has gone almost exclusively for the education of young men designed for the professional and mercantile classes. And what has been done for the education of Plough Boys,—whose productive labors are the life-blood of our commerce, the sinews of our manufactures, and the food and raiment of our professions? Comparatively nothing. It is ardently to be hoped, that the example of Virginia, prompted as it is by the intelligent mind of a Madison, will awaken our legislature to a just sense of the importance of establishing a school of agriculture. I have no doubt but it would tend, more than any other measure, to improve our husbandry; and that the increased tolls upon our canals, which it would cause, by increasing the productions and profits of our farms, would remunerate the state, in ten years, the whole expense of the establishment.

You have said there is at least *one* establishment of this kind. I presume you allude to that

of M. Fellenburgh, at Hofwyl, in Switzerland. This school affords a demonstration not only of the practicability, but of the usefulness, of teaching, conjointly, the theory and practice of agriculture. So high has its reputation become, that many of the young German noblemen are sent to M. de Fellenburgh for instruction; and his pupils receive extravagant salaries as managers upon many of the great estates on the continent. I advise you to procure and publish an account of the institution. It may be found in one of the Edinburg Reviews; I think, in the volume for 1817. There is also a report of it, made to the Emperor of Russia, in 1814, by the Count de Capo d'Istria; a pamphlet by M. Pictet, of Geneva, and considerable said in its commendation by Mr. Brougham, in a report to the commons of Great-Britain, made in 1818, on the subject of education. Mr. B. spent some time at Hofwyl. But this is not the only school. In a volume of recent travels through Hungary, Dr. Bright enumerates six or eight, and says there are others, which have been established in the Austrian dominions, by the government and by individuals, on the Hofwyl plan. Accum, the well known chemist, has recently received an appointment in a similar school, from the King of Prussia.

But why seek for European precedent? We have a double inducement for such a school here. It will give us good statesmen as well as good farmers. We want farmers whose education will qualify them to speak in our legislative halls, to draft bills and reports, and to discharge the duties of any of our public offices. We want the yeomanry of our state to possess the influence which their numbers and republican virtue entitle them to; and we wish to instruct them, that their influence may be directed to public good.

COLUMELLA.

On the means of promoting the growth of Young Fruit Trees, particularly in grass land. By the Rev. Mr. Germershausen.

From the Transactions of the Economical Society of Leipsic.

When young trees stand in grass-land, or in gardens where the earth is not dug up every year around them, and freed from weeds, they do not at first increase properly in growth, and will not thrive so well as those which have been planted in cultivated ground. It has been remarked also, in orchards, that the more the ground becomes grassy, and, as it were, converted into turf, the fruit is smaller and not so well tasted. The latter circumstance takes place particularly with regard to plums.

Having planted several young plum trees, I covered the ground, for some years, around the trunks, as far as the roots extended, with flax-shows,* by which means these trees, though in a grass-field, increased in a wonderful manner, and far excelled others planted in cultivated ground. As far as the shows reached, the grass and weeds were choked; and the soil under them was so tender and soft, that no better mould could have been wished for by a florist.

When I observed this, I covered the ground with the same substance, as far as the roots extended, around an old plum tree, which appeared to be in a languishing state, and which stood

*Shows are the refuse of flax when it is scutched or hackled.

in a grass field. The consequences were, that it acquired a strong new bark; produced large and better tasted fruit; and that those young shoots which before grew up around the stem and which it was every year necessary to destroy, were prevented from sprouting forth, and the covering of flax-shows impeded the free access of air at the bottom of the trunk.

Last year I transplanted from seed-beds, into the nursery, several fruit trees; the ground around some of which I covered, as above, with flax-shows. Notwithstanding the great heat of the summer, none of those trees where the earth was covered with shows, died or decayed; because the shows prevented the earth under them from being dried by the sun. Of those trees around which the ground was not covered, as before mentioned, the fourth part miscarried; and those that continued alive were far weaker than the former.

The leaves which fall from trees in autumn may also be employed for covering the ground, in like manner: but stones, or logs of wood, must be laid on them, to prevent their being dispersed by the wind. In grass land, a small trench may be made around the roots of the tree, when planted, in order to receive the leaves. If flax shows are used, this is not necessary; they lie on the surface of the ground so fast as to resist the force of the most violent storm. The leaves which I have found most effectual, in promoting the growth and fertility of fruit trees, are those of the walnut tree.—Whether it is, that, on account of their containing a great abundance of saline particles, they communicate manure to the ground, which thereby becomes tender under them; or that they attract nitrous particles from the atmosphere, or that, by both these means, they tend to nourish the tree, both above and below.

Those who are desirous of raising tender exotic trees from the seed, in order to accustom them to our climate, may, when they transplant them, employ flax-shows with great advantage. This covering will prevent the frost from making its way to the roots; and rats and mice, on account of the sharp prickly points of the flax shows, will not be able to shelter themselves under them.

Tan or the refuse bark which has been used by tanners, has been recommended for the same purpose for which flax shows are advised as above. Tessier's Annals of Agriculture advise to use the breakings or refuse of hemp in the manner above directed. Wood ashes and slack-lime are likewise stated to be useful, not only for manure, but for the destruction of insects. It would be well if trials were made of all these substances, on different trees in the same orchard, and the results of such trials noted and published for the benefit of the community.—Ed. N. E. Farmer.

From Sinclair's Code of Agriculture.

Rollers.—The roller is the most useful implement for breaking hard clods expeditiously, and smoothing the surface of land when in tillage, ever yet invented. It is likewise of use to grass lands laid down for hay; and heavy rollers would prevent those ant hills, by which so many pastures are deformed. Rollers are

made of various substances; as wood, freestone, granite or cast iron; but on the whole the two latter are to be preferred. It is of importance, that the weight of the roller should be in proportion to the surface on which it is to be employed. The best plan, is that of having two rollers, each about two feet and a half in length, and both placed in one frame, so as to roll clear of one another. This is the most suitable both for corn crops and sown grass, as it neither tears up the tender soil, nor injures the young plants. Besides the labor in turning is much less severe on the frame and on the cattle. Every farm ought to be provided with rollers of different diameters and weights, so as to suit the several purposes to which they are destined; those of a small diameter are generally applied to land in tillage; and those of a large diameter, with double shafts, to grass land. Heavy rollers are of great use, for destroying worms, logs, and other vermin in the soil.

An intelligent farmer maintains, that if draining is the first, manuring the second, and cultivation the third, rolling ought to be considered the fourth principal operation in the processes of agriculture.—Its importance indeed, is becoming more apparent, and new advantages are derived from its use both on arable and on grass lands.

Wheat should always be rolled in the Spring, after frosts, as it makes the soil adhere more closely to the roots of the plants, encourages vegetation and strengthens the stems, and renders the grain more perfect. When any crop is sown with artificial grasses, rolling is particularly necessary, to make an even surface, breaking all clods, and pressing down any stones it may not be thought necessary to carry off, to facilitate the future operation of the scythe. Mats in a light soil, may be rolled to advantage, immediately after the seed is sown, unless the ground be so wet as to cling to the roller. After turnips are sown in drills, they ought to be immediately rolled, to make the soil compact, and to promote their speedy germination. Not only for turnips, but for all other crops, rolling, particularly during the night, is found to be an efficient means of destroying slugs, snails, the wire worm, and other vermin, so destructive to young plants. Flax ought to be rolled immediately after sowing; it makes the seed vegetate equally, and prevents after growth; the bad effects of which are visible in every step of the process for dressing flax.

The other advantages for rolling arable land are, that it renders a loose soil more compact and solid. This encourages the growth of plants, by pressing the soil to their roots. It likewise keeps in the moisture, and prevents it from penetrating. When the soil is worked up lightly, moisture either filters through too quickly, or is easily evaporated. In a dry season this may occasion a very material difference in the crop, more especially in a light soil. Rolling is executed to most advantage across the direction of the ridges, because more adapted to ensure full benefit to the furrows which otherwise may not be properly gone over.

When a large field is to be rolled, a number of rollers ought at once to be set at work, otherwise an opportunity may be lost never to be regained.

It has long been considered, as an incontrovertible proposition, and approaching to the na-

ture of an axiom, "That whoever could make two ears of corn, or two blades of grass, to grow upon a spot, where only one grew before, would deserve better of mankind, and do more essential service to his country, than the whole race of politicians put together."

There never was a greater instance of sophistry, than this doctrine of Swift's, who seems not to have been at all aware, of the immense benefits, conferred upon agriculture, by a judicious system of civil policy. In fact, the prosperity of agriculture, depends upon the politician. The better and more equitable the civil policy of a country, the more perfect will its agriculture become. Those politicians or statesmen, therefore, who, by removing every obstacle, and furnishing every proper encouragement to agriculture, promote its advancement, have a higher claim to the gratitude of mankind, than those who have merely performed a secondary or practical part, which part, they never could have performed at all, but under the protection of wise laws, regularly administered, and executed with impartiality and vigor.—*Ibid.*

Rules to be observed regarding the Improvement of Waste Lands.

In the cultivation of wastes, the following rules are laid down by the most successful improvers.

1. Not to put in practice any scheme of improvement, without the fullest deliberation, nor without the command of an adequate capital.

2. Not to begin on too great a scale, nor until, by experiment it be found, that the design is suitable to the soil, situation and climate.

3. When the intention is to cultivate peat-moss, not to begin cropping, till at least one season after the drains are completed, and the soil thoroughly reclaimed from superfluous moisture. In flow or spongy mosses, a longer time is necessary, and it is desirable to expose the soil to the action of the atmosphere, during the frosts of winter.

4. To plough or delve peat-moss in autumn, that it may be effectually exposed to the winter frost and rains, and not to the summer's heat, which hardens it, and prevents its decomposition.

5. Whatever is done, to do it *effectually*; not to think of laying on four acres, the manure necessary for three; nor the lime, chalk, earth, clay, sand or gravel, upon two acres, that should be employed in covering only one.

6. To carry on the improvement of waste lands, without encroaching upon the dung necessary for the improved part of a farm, as dung ought never to be brought from a good soil to lay upon a bad one. Unless dung therefore can be procured from a neighboring town or village, it will be better to leave the lands in their natural state, except in cases where the soil, by being pared, burnt, limed, or marled, or covered with chalk, clay, earth, &c. will pay the expense of the improvement.

7. The last rule is, to lay down land, improved from waste, more especially in high and bleak situations, as soon as possible into grass, and to retain it in that state as long as it is tolerably productive. For though grain and roots may be cultivated on waste lands, when properly improved, yet grass pastured, particularly by sheep, is principally to be depended on for improving all weak soils, in barren districts. In

such cases, it is from grass alone that remuneration can be looked for by the improver of waste lands. Even though soils of this description do not produce grass in much abundance, or of good quality, yet when in pasture they produce something, and a stop is put to farther expenditure.—*Ibid.*

Ditching.—When bushy ground, full of strong roots, is to be ditched, the Rev. Mr. Eliot wisely recommends beginning the ditch in the winter, when the ground is frozen two or three inches deep. The surface may be chopped into pieces by a broad axe with a long helve, and the sods pulled out with an instrument made like a dung croom. The farmer may probably hit upon a good time for this work in December, when there happens to be no snow, and when it will not interfere with other farming business. The lower part of the ditch may be done in the following summer, or autumn. In a free and firm soil, a ditch may be begun with a plough, drawn by an orderly team that will keep to the line. This saves labor.

To make a ditch straight, and equal in all its parts, it is recommended that the work be regulated by a frame of slit deal, nailed together, to the exact size of the intended ditch. It may be a rod or more in length, and as wide as the intended ditch.—*Deane's N. E. Farmer.*

Rice Jelly.—This is one of the best and most nourishing preparations of rice, particularly for valetudinarians or convalescents. It is thus made: Boil a quarter of a pound of rice flour, with half a pound of loaf sugar, in a quart of water, till the whole becomes one uniform gelatinous mass; then strain off the jelly and let it stand to cool. A little of this salubrious food eaten at a time, will be found very beneficial to those of a weakly and infirm constitution.

Chemical Agency by the Magnet.—Mr. J. Murray states, that he had succeeded in decomposing by the magnet, every metallic salt to which he had applied it. One instance of this fact, so interesting to science, we quote for the sake of its tendency. 'A solution of *permuriate* of mercury was, by the magnet, soon reduced to metallic or running mercury.'—Hence fine steel filings, magnetized, administered in syrup, will be an admirable antidote to corrosive sublimate.

London paper.

Sir John Sinclair, in his Code of Health declares that the modern art of Fencing is not only conducive to longevity, but absolutely enlarges the bones of the chest and thorax. *Locke* calls it an essential part of good education.—*Wright* on Elocution, praises it as an auxiliary to Elocution. *Chatham*, in one of his letters to his nephew, Lord Camelford, assures him, it will place his head upright and plant him well upon his legs.—*National Gazette.*

There is not an earthly beauty that I look upon, that has not something in it spiritual to me. And when my mind is fair and open, and soul right, there is not a flower I see that does not move my heart to feel towards it as a child of God. All that is, to my mind, is a type of what shall be; and my own being and soul seem to me as if linked with eternity.—*Idle Man.*

TO THE EDITOR OF THE NEW ENGLAND FARMER.

Having seen in No. 16 of your paper, a request for some information respecting the cheapest and best mode of clearing heavy timbered new lands—I send you the following: From long experience and strict observation, I am of opinion that the generality of people involve themselves in more than twice the labor and expense necessary for the want of prudent care and attention in falling their timber. Most farmers when they begin in the woods, are in a hurry to have some land cleared; they hire their chopping done by the job, and such choppers, so hired, are only interested in doing it as fast as possible. They generally cut the smallest timber first, fall the trees promiscuously in all directions the way they will go with the least chopping, and the largest trees the last. Then after it has lain a year to dry and the fire been through it, to burn the small brush, the logs lay in all directions; the smaller fast under the larger, and it will then be twice the labor to clear it off, that it would be if nothing had been done, provided they would follow the following directions.

1st. Take a view of all the large trees, and see which way they may be felled, for the greatest number of smaller trees to be felled along side, or on them. After felling the large trees, only lop down the limbs; but all such as are felled near them, should be cut in suitable lengths for two men to roll and pile about the large trees, by which means they may be nearly all burnt up without cutting into lengths or the expense of a strong team to draw them together.

2d. Fell all the other trees parallel and cut them into suitable lengths that they may be readily rolled together without a team, always cutting the largest trees first that the smallest may be loose on the top to feed the fires.

3d. On hill sides fell all the timber in a level direction, then the logs will roll together, and if the trees are felled down hill, all the logs must be turned round before they can be rolled, and there will be stumps in the way.

4th. By following these directions two men may readily heap and burn most of the timber without requiring any teams, and perhaps the brands and remains of the log-heaps may all be wanted to burn up the old fallen trees. After proceeding, as directed, the ground will be clear for a team and sled to draw the remains of the heaps where they may be wanted, round the old logs. Never attempt to either chop or draw a large heavy log until the size and weight is reduced by fire.

The more fire-heaps there are made on the clearing, the better, particularly about the old logs, where there is rotten wood.

The best time of the year to fell the timber, in great measure, depends on the seasons' being wet or dry. Most people prefer having the timber fallen in the month of June, when the leaves are of full size. Then by spreading the limbs and brush over the ground (for it should never be heaped) if there is a very dry time the next May, fire may be turned through it, and will burn the leaves, limbs, and top of the ground so that a very good crop of Indian corn and pumpkins may be raised amongst the logs by hoeing; after those crops come off, the land may be cleared and sowed late with rye and timothy grass, or with oats and timothy in the

spring. If what they call a good burn, cannot be had in May, keep the fire out until it can be had in some very dry time in July or August; then clear it off and sow either wheat or rye and timothy, harrowing several times, both before and after sowing, for after the fire has been over the ground, the sod of timothy should be introduced as soon as the other crops will admit, to prevent the briars, elders, fire-cherries, &c. from springing up from such seeds as were not consumed by the fire.

The timothy should stand some 4 or 5 years, either for mowing or pasture, until the small roots are rotten, then it may be ploughed, and the best mode that I have observed, is to plough it very shallow in the fall; in the spring, cross plough it deeper, harrow it well and it will produce a first rate crop of Indian corn and potatoes, and the next season produce the largest and best crops of flax that I have ever seen and be in order to cultivate with any kinds of grain or to lay down again with grass.

These directions are to be understood as relating to what is generally called *Beech Lands*—and the chopping may be done any time in the winter, when the snow is not too deep to cut low stumps, as the leaves are then on the ground. By leaving the brush spread abroad, I have known such winter choppings to burn as well in a dry time in August as that which had been chopped the summer before.

SAMUEL PRESTON.

Stockport, Pa. Dec. 14, 1822.

Report of the Committee of the Hillsborough (N.H.) Agricultural Society, on Agricultural Products.

The committee, appointed to view, on the ground, field products of competitors, have performed the duties of their office agreeably to their instructions. Of eleven, who were chosen as a Viewing Committee, only seven attended to the business of their appointment, viz. Peter Woodbury, William Riddle, Ezra Abbot, Porter Kimball, Phillip Brown, Joseph Cochran, Esqrs. and Humphrey Moore. They began their rout on the 29th July, and completed it on the first of August. They beg leave to make the following Report of their doings.

They commenced their business by viewing the crops and farm of Dr. Thomas Eaton, of Francetown. The products of his fields were all good. But his most distinguishing crop was Wheat, of which he had four and a half acres, and, for the present year, was excellent. The Committee awarded him the first premium for his WHEAT CROP. His POTATOES, growing on 1½ acres of ground, were well cultivated, and appeared very promising. For these he was considered to be entitled to the second premium. His Indian Corn and French Turnips were very luxuriant; but upon comparison with the same kind of crops of other competitors, they were not esteemed deserving an award.

The farm of Dr. Eaton, containing 280 acres of land, is made up of hills and valleys, and is generally of a warm, free soil. It is well proportioned in respect to woodland, pasturage, mowing, orcharding, and tillage. Order and judicious management marked every department of his Agricultural business. Every thing appeared to be done with calculation and for profit. The extent and conveniences of his barns, out-houses, and the order of his house, shew how delightful may be the situation of a

farmer. He consumes the whole of his crop in his family and in his stock; and, sometimes in addition makes considerable purchases for consumption. That this method should continually add to the fertility of a farm, is not doubted; but whether it will give the greatest net profit for any given course of years, is submitted to Agriculturalists who love to make experiments, and also love to make calculations.

The Committee next viewed the crops of Messrs. Folsom and Whittle, of Deering. Their Oats, growing on 2½ acres of ground, were generally very heavy, and were considered worth of the premium offered for the best crop of the species of grain. Their Potatoes, 4½ acre looked very well, but did not excel. Their Wheat, of which there were four acres, was very good, and would have received a premium had not other fields, in competition, been better. Their farm contained about 400 acres of good land. The soil was strong; but from its close texture, it appeared to be better adapted generally to grass than to grain. The Committee were a little surprised to see, on such a good and extensive farm, keeping 40 head of cattle and 70 sheep, only 2½ acres of Indian Corn, and no more than ordinary luxuriance. But the great article of this farm and the source of wealth to its owners were stock; which gave evidence of the superior quality of the breed and the excellence of their keeping. The farm was well managed, and distinguished for some of its well built and permanent fences.

The farm of Mr. William Whittle, of Weare contains about 200 acres of land of various qualities. His Wheat crop, covering four acres of ground, appeared very well. It has suffered from the early drought. On comparison, it could not command a premium. Seven acres of his ground were planted with Indian Corn. The field was a pine plain; the soil very light; the manuring small. Considering these circumstances the crop commanded attention. The third premium on INDIAN CORN was awarded to him. His farm generally appeared to be under a profitable process of cultivation.

Mr. Peter McNeil, of New-Boston, has a farm generally hard and uneven. By industry he makes it fruitful and profitable. He offered an acre of WHEAT for examination. The crop was very good, and it was esteemed worthy of the second premium.

Mr. Jacob Hooper, Jr. of New-Boston, offered several crops for examination. They were all good, but none was entitled to a premium excepting his FLAX, for which the first award was made.

His farm, of 200 acres, lies principally on a beautiful hill, whose ascent is easy, and whose soil, though not of the richest quality, was very feasible. His fields were laid out with accuracy and cultivated with the greatest care. The fences were exceedingly well built, and of the most durable materials. Not a bush infested the walls, or headlands; nor a weed of a finger's length encumbered his fields. Not a squirrel or a mouse, could find rubbish enough for a lurking place, from which they might sally forth to make their depredations upon the crops. Ceres might here plant her throne, and rejoice at her success, that she had found one spot on earth where her laws were strictly obeyed. The barn, the granary, and the work shop were in perfect order. The

ols were in repair, and were where they ought to be. The door-yard was free from imbrances. Not a chip was out of place. The parlor of the hogstye, whose walls and floor were made of well prepared granite, was neat enough for the study, or office of any professional gentleman in the county. The house and the good order of the house, completed the system of neatness and correct management.

The farm of Mr. John Fairfield, of New-Boston, is situated on the east side of a large hill, and is naturally rough and rocky. The acre, which he selected for POTATOES, was a light soil. The crop was luxuriant, and the Committee awarded him the first premium. His other crops appeared very well; and his farm, though generally hard and rocky, gave evidence of industry and good management.

Doctor Matthias Spalding, of Amherst, entered his name as a competitor on Wheat, Indian Corn, and English Turnips. His Wheat had suffered by the drought, was harvested, and the committee could not examine it. His field of Indian Corn, containing about three acres, was very good. The soil was warm, and light, and well cultivated. The crop was entitled to special notice; but the excellence of other Corn crops prevented it from receiving a premium. His ENGLISH TURNIPS were in a flourishing condition, and promised a large crop. For this product he was considered entitled to a premium.

His farm is small, and the principal part of it is naturally hard. When he made his purchase, much of his land was in a rude, and almost uncultivated condition. But by taking out the stones and making enclosures with good stone walls; by taking up piece after piece, and giving each a thorough cultivation, he has made a large proportion of his farm like a garden. He has proved that the science of Agriculture is adapted to practice; that hard land may be made soft; that poor land may be made rich; and that an unfruitful soil may be made productive. His general method of husbandry improves his land, while it improves his crops.

The farm of Timothy Danforth, Esq. of Amherst, is made up of various soils. His land lying on the Souhegan is very rich and fertile. The back lands are light and dry. A part of his Indian corn and a part of his oats are very heavy. His field of Potatoes were very good. His RUTA BAGA, growing on nearly half an acre, very flourishing, and promised a valuable crop. The Committee saw fit to honor these with a premium. His method of culture is improving his farm and making it more profitable.

The Committee, as they were passing from Amherst to Wilton, called on the Minister of Milford. After having made the usual examinations, they awarded him a premium for PEAS and BEANS.

They next examined the crops of Capt. Wm. Amsdell. His farm lies in Milford, bordering on the Souhegan river. He has a large tract of valuable intervale; a good proportion of arable land; and the remainder, pasturage and woodland. The farm contains a variety of soil, which is adapted to a variety of products, which are for the convenience of a family and for the interest of a farmer. His Wheat, in the fore part of the season, was very luxuriant, and promised a first rate crop; but growing on arm land, it was greatly injured by the early

drought. His Oats, not offered for a premium, were equal to any that were examined. His field of INDIAN CORN, growing on light, warm land, was extraordinary for that quality of soil; and he was awarded the second premium. His farm is managed with great neatness and good judgment; and every thing about him denotes that he is going ahead.

The farm of Mr. James Dascomb, of Wilton, is rough, hard, and rocky. It would require an iron constitution, and a resolution, not to be broken or bent, to live upon it. On the eastern declivity of his farm, he has a field of INDIAN CORN, containing four acres. The soil is as strong as stones can make it. It appears as if the pavements of nature were broken up.—Amidst this seeming wreck of rocks, the Corn is of uncommon size. Though the hills were made at a usual distance from each other, the Corn was so thick that it was difficult to walk among it. There were stalks more than 10 1-2 feet in height, and well eared. The Committee were pleased to award him the first premium; and they could only regret that it was no larger.

The Committee went next to Mr. Oliver Whiting's, of Wilton. There they examined a field of BARLEY, containing five acres. It was a fine crop. It was estimated that it would yield 40 or 45 bushels per acre. It far exceeded any other Barley crop, which was offered. The premium was awarded to him. His farm contains more than 700 acres of land. Though he is a man of but little more than 40 years of age, he has acquired the principal part of it by hard labor and good management.

The foregoing awards were made after the Committee had examined the products of all the competitors; and they were made according to the best of their judgment; and generally with unanimity. Though each competitor did not excel in every thing; yet they all excelled in something, and no one has the mortification to have his hopes blasted, nor his ambition checked.

The Committee are decidedly of opinion, that the present method of awarding premiums on Agricultural products is wisely chosen, and that it will promote the great object of our Society. There is an equal chance for all; and the members will cease to fear to strive, when they find that there is no injury attending a defeat.

The task, which the Committee has performed, though laborious, and at a season somewhat inconvenient, was a pleasant and improving one. The hospitality of a farmer's board, drawn from the resources of his own soil, was calculated to gratify the taste of men, who had a relish for a farmer's life.

The committee were not unobserving travelers as they passed from town to town. They noticed the farms, which lay within their view, and their distinguishing peculiarities. Many were excellent; and generally they were considered to be in an improving condition. It was with painful anxiety the Canada Thistle was observed on the sides of roads upon the high lands, and upon the banks of streams, lest that winged evil should visit and afflict this part of the county. Here and there a bush thrust itself through a breach in the fence; now and then an old hat or a bundle of rags looked contemptuously through a broken pane of a window, and by their looks hinted as if they would appear in our next legislature, and raise their

voice against the existence of Societies, which were established to destroy their rights and privileges.

The most prominent defect, which was observed among the farmers, was their neglect of making Manure. With a very few exceptions, they did not appear to make any more than what they could not easily avoid making. Till this defect is remedied; till manure is considered the basis of good husbandry, Agriculture will keep far behind the other arts.

All which is respectfully submitted by your Committee.

HUMPHREY MOORE, for the Committee.

September 24, 1822.

From the London Farmers' Journal.

On the comparative merits of the Improved Short-Horns and Hereford Cattle.

Horsford Hall, near Leeds, Sept. 26, 1822.

SIR,

I have for a long time had an anxious wish to examine the question which has so much occupied the minds of agriculturists—*Whether the preference is to be given to the best Hereford Cattle or to the Improved Short-Horns?*

For this purpose, I last year made a tour into the north of England, and am now just returned from a similar journey of five hundred miles through Herefordshire and the adjoining counties. Nothing short of personal examination of the animals in their respective districts, and in their *natural state*, could give me the means of forming an opinion satisfactory to myself; whether it may be satisfactory to your readers may, perhaps be doubted; but if I give it with impartiality, it will, I hope, receive candid attention, and not be commented upon with too great severity.

The animals designated by the title of *Improved Short-horns* are few in number, and they are widely diffused, as they have obtained high prices, and have been carried into various places to ornament many stocks. They have soft, silky, and mossy hair, and are very rich and mellow handlers; handsome and gay in color; elegant in shape, large frames on very short and small bone; level and complete in all their points, and take on fat rapidly. They give a moderate quantity of milk, and do not propagate freely; they attain maturity at a very early period of life, and on this account, as well as from the extreme laziness of their dispositions, they are quite unfit for any labor.

The Herefords are more equal as a class than the improved Short-horns. Their offal is equally fine, many of them handle well, and have a very good quality of meat. They give very little milk, but breed well, and are hardy and healthy. Their color is not attractive, their dispositions are much less placid, their skins thicker and more terse; they, therefore, take on fat less freely, especially at an early age; they do not attain so great a stature in the same number of months, and have never at any period, but particularly in youth, that perfect symmetry which distinguishes the Short-horns. Their hind quarters are very frequently coarse and short; their rumps low, their heads fleshy and heavy, and their breasts scanty and defective; but their shoulders are almost uniformly fine; their neck veins full, their flanks in some few instances good, and their twists generally excellent. I found a vast number with flat sides,

very few with wide hips, and the hair of almost all was very short and harsh.

These, Sir, appear to me, upon a careful examination, to be the distinctions between the two rival breeds. I need scarcely add that I think there is a decided superiority in the Short-horns.

I have every reason to believe that on the same food, and in the same relative circumstances, the Short-horns would be as good at two years old, as the Herefords are at three. If, however, half a dozen of each were committed to the care of the same person, and brought up precisely in the same manner, the result would be highly interesting; and if they were brought up here, I would give the Herefords their food for nothing, if they were the conquerors.

I am well aware that without such a trial, there will continue to be a great difference of opinion on this question; but as my object is truth and usefulness, and not fallacy and controversy, I submit my remarks with every deference, to the judgment of your readers, not being at all anxious to enter into any defence of the opinion I have formed, if it can be proved to be erroneous, as I had no other wish to gratify, or purpose to serve, in making this laborious and extended survey of the two breeds, and in now informing you of the result, than a desire to promote the interest of agriculture.

In the mean time, till the experiment is fairly tried, I must remind your readers that the comparison is not between the excellent breed of Herefordshire and the wretched cattle with short-horns, which find their way, very undeservedly, into many parts of the south, but between the best Herefords and that select and valuable breed to which the name of *Improved Short-horns* ought to be exclusively applied.

I am your's, very respectfully,
JAMES ARMITAGE RHODES.

From the Buffalo Patriot, Nov. 26.

Satellites of Venus.—The following singular property of the plain Mirror, is now it is believed, to the philosophical world. It was accidentally discovered by a gentleman a few mornings since, and as the subject may excite much speculation, we give his account of it in his own words.—“Sitting this morning, about gun-fire, with my back to the East, the window being open, and Venus shining brightly into the room, I was surprised to observe two Satellites close to that planet reflected in the mirror which the bearer was holding before me. I turned round immediately and looked at Venus steadily with the naked eye but could not discern them. Again I looked into the mirror with the same success. I then tried another mirror, supposing that the appearance arose from some defect in the glass; but still the two luminous specks, like stars of the sixth magnitude were distinctly visible. If the existence of this extraordinary property of the plain mirror, rivaling in its powers of magnifying, nay, surpassing the first instruments in the hands of the great Herschell himself, be confirmed by the experiments of other more able observers than myself, it is difficult to say what wonderful discoveries may not shortly be made. The satellites of the inferior planets have long been a desideratum in Astronomy, and if the honor of their discovery be reserved for our new Calcutta Observatory, I shall sincerely rejoice that I

have been the humble means in the hands of Providence of pointing out the path. There is one thing that puzzles me to account for, unless we have recourse to a new and not improbable theory of optics. I allude to the circumstance of Venus not exhibiting in the mirror her present gibbous appearance, which a very ordinary telescope will show, while the two Satellites are distinctly represented in the speculum, though invisible to the most powerful instrument hitherto made. Those who are acquainted with the distinction between the rays of sensible and rays of radiant heat, will be at no loss to conceive to what I allude. We are as yet but in the infancy of optical science, and light may have many properties which we are now perhaps on the eve of discovery.”

THE FARMER.

BOSTON:—SATURDAY, DEC. 28, 1822.

ON SAVING AND MAKING THE MOST OF MANURE.

(Continued from page 151.)

In our last number on this subject, we attempted to shew that nearly all the essential constituent parts of all vegetable substances were composed of carbon, hydrogen and oxygen, combined in various proportions, together with azote, which last is found only in some few species of plants. These four bodies, or different kinds of matter, by being differently combined, form the vast variety of vegetable products, which appear to possess not only very different, but opposite qualities, such as sweet, bitter, sour, oily, resinous, glutinous, wholesome, poisonous, &c. &c. As these ideas are probably new to many of our readers, although undoubtedly of great importance, and indeed indispensably requisite for all who would understand the rudiments of the science of agriculture, we shall still farther enlarge upon them. This we are the more readily induced to do on account of the season's inviting to protracted discussion, and the winter evenings presenting leisure both to our readers and ourselves, which might be devoted to less laudable and more unprofitable employments. Besides, we do not give any credence to the maxim of the poet, who says,

“Brevity is always good,
If we are, or are not, understood.”

On the contrary we think, when any matter of science requires to be elucidated, and its first principles explained, in order to pave the way to results of practical utility, it is better to give “line upon line,” and run the risque of being censured for redundancy, than to adopt a style more nervous and concise, but less intelligible, and not so well adapted to the capacity of common readers.

A little more or a little less in the proportions of the compounds of carbon, oxygen and hydrogen, causes the wonderful variety of vegetable products. Thus “gum and sugar contain nearly the same principles, and starch differs from them only in containing a little more carbon. These three products are convertible into each other. Thus, in the ripening of grain, the sugar conveyed into it by the sap vessels, coagulates into starch; while in maling the converse takes place, and the starch in grain is converted into sugar, from which ardent spirit results. Part of the carbon combines with oxygen, and escapes in the form of carbonic acid, while the remaining hydrogen and oxygen unite to form alcohol.”* Sugar contains, according to Lavoisier, in 100 parts,

28 carbon,
8 hydrogen,
64 oxygen.

Starch, according to Gay Lussac and Thenard, contains,

Carbon, with a small quantity of saline	
and earthy matter,	43,55
Hydrogen,	6,77
Oxygen,	49,68

Now if we could take from the carbon in starch as set down above 15,55, that is from 43,55 take 15,55, there would remain

If we could add to the hydrogen of starch 1,23, or to 6,77 add 1,23 we should have

If we could add to the oxygen in starch 14,32, or to 49,68 add 14,32, we should have

Thus a little adding and subtracting from the constituent parts of starch, converts starch into sugar, and other vegetable products are capable of being altered or converted from one to the other by similar means. This nature often performs, but art is generally baffled in the attempt. De Saussure, however, has succeeded in converting starch into sugar by boiling the former in water with sulphuric acid, and it is possible that other vegetable products may be conducted through analogous changes, artificially, by chemical processes yet undiscovered. It will not appear at all incredible that a mixture of simple substances should form compounds very different in their properties from the substances before mixture, when we reflect that by melting together potash and sand, glass is produced, and mixture of muriatic acid [spirit of sea salt] and soda, both very corrosive, forms so mild and salutary a article as table salt.

Barn-yard manure, and other animal and vegetable manures, are composed of the same constituents, viz. carbon, oxygen and hydrogen, as the plants which they nourish. Vegetable or animal substances are of no use as long as those particles or atoms remain locked together, or attached to each other. The putrefactive process unlocks or lets loose their component atoms and they immediately commence wandering in, and poisoning the atmosphere, unless they light of some substance which has power to absorb them. If the atoms are taken into the lungs of man or beast, the animal receives an injury, which, though perhaps at the time not perceptible, is not the less real. If, however, they are taken in by the absorbent vessels of plants, either in their roots or leaves, the plants convert to their own uses such particles as their necessities may require, and the floating atoms, perhaps recently released from a dead vegetable or animal, become a part of a living plant. It is therefore incumbent on an enlightened agriculturist to seize the vagrant atoms, and either present them as food for growing crops, or treasure them up for the use of future crops.

The absorbent substances which may be used to advantage for retaining and hoarding up the gases, which constitute the food of plants, are principally WATER and EARTH. Water not only dissolves solid bodies such as salt, sugar, &c. but likewise attracts and retains in solution gases or steams, such as rise from dunghill in a state of fermentation. Ammonia, or the volatile alkali, is one of the products which arise from the decomposition of all animal or vegetable substances. When uncombined with water, or any other substance, it exists in a state of gas, and is then so extremely volatile as to exhale at any known temperature. Its volatility is diminished in some degree by combination with water. That fluid has the power of taking up and condensing nearly 670 times its own bulk of ammoniacal gas, or volatile alkali. Carbonic acid gas, which also arises from the putrescence of de-

* *Agricultural Chemistry*

ing bodies, is absorbed by water, which combines several times its bulk of that gas." When water impregnated with these gases it supplies food to plants in great abundance. If we pour water on a top of stable or cow dung in a state of fermentation, flows out at the bottom altered in its color, taste and smell. It becomes impregnated with new substances which it has gathered in its passage through the dung, and holds in solution the results of the decomposition; and if it be deeply black and putrid it is a certain indication of its being entirely saturated. To suffer this, therefore, to run off without any care or trouble, is most culpable mismanagement, and a flagrant violation of the soundest maxims of rural economy. A putrescent stream is the very essence of manure, and should either be scrupulously confined within the limits of the dung hill, or conveyed to fresh earth that may impart its nutritive qualities."

The use of water as an absorbent and solvent for manure, is well understood in Europe. "The farmers of Switzerland consider liquid manure as the most efficacious of any, and thence, after the dung is fermented, they dilute it in water, and the liquid alone is carried to the field, and scattered over it. The earth immediately imbibes the liquid, which soon reaches the roots of the plants, and causes a rapid vegetation; whereas it is a long time before dung, in a solid state, fertilizes the soil. The straw that remains, after the dung is thus washed, is applied as manure for potatoes."*

If water is capable of holding the finest and most nutritious particles of manure in solution, it must be a very wasteful practice to suffer manure heaps to be washed by every shower, and the drainings to be conducted into the highways, to flow into a neighboring brook, or what is equally, and in some instances more prejudicial to the interest of the farmer, to make a part of the land so rich as to be unproductive, or at most to yield little but rank weeds, and perhaps grass which grows before it is half grown, and is wholly or at least partially rotten before it is ripe.

Hints as to the Agricultural States of the Netherlands, page 67. Lord Kaimes likewise recommended liquid manure.

(TO BE CONTINUED.)

EVERLASTING PEA, *Lothyrus latifolius*.

A person living, it is believed, in the State of New York, some time since advertised a quantity of Everlasting Pea, for sale. A small quantity of said peas are wanted by a gentleman in Boston for seed. They might be forwarded to the care of the Editor of the New England Farmer, Rogers' Buildings, Congress Street, Boston, or to some other person in Boston, at the option of the owner. Information, stating where those peas may be had, the price, and readiest mode of conveying them to Boston, would confer a great favor. If the Editor of the Plough Boy would be so good as to give notice of this request, and make it the subject of a paragraph in his useful paper, he would very much oblige

The Editor of the N. E. Farmer.

FARMER SUMMARY OF NEWS.

CONGRESS.—Nothing of great general interest has been transacted by this body. Private petitions, relatives in their incipient stages, and calls on different departments for information, have occupied almost exclusively the attention of both Houses. They appear to be getting their tools in order, and will probably go to work as soon as the Christmas holidays are over.

A vessel arrived at New York on the 23d inst. brought London papers to the 6th and Liverpool to the 8th of November. The accounts of the Greek victories are

confirmed. It appeared that 15,000 men had been landed at Napoli de Romania from the Turkish fleet, which army was subsequently taken and destroyed.

Great processions, feasting, toasting and other similar displays of patriotism have been exhibited in England on account of Mr. Hunt's liberation from prison.

There are rumors respecting some difficulties and disagreements among the principalities and powers, who compose the Congress at Verona; and something is intimated at Paris relative to the Emperor Alexander's returning to his own empire sooner than was anticipated. But these reports have a questionable shape.

The Spanish General Morillo has been arrested by the Constitutional party, and conducted, under a strong guard, to Placentia.

Canova, the celebrated sculptor, died at Venice on the 13th of October, after a short illness.

If we may believe an official account of General Morales, the Colombian army had suffered a very disastrous defeat near Carabuya, on the 15th November.—The following is an extract from the official bulletin, which announces the battle and its results:—"At 11 o'clock, at the distance of about a quarter of a league from this point, the enemy offered us battle, in number 1200 infantry, and 100 cavalry, all veteran troops of the battalions of Bovaca, Mompos, Antioquia, and 4 companies of Carthagena. They commenced their fire by skirmishing, besides their columns en masse, which gallantly charged ours, and at less than 400 paces, our troops charged with the bayonet, and in spite of the horrible fire of the enemy they charged them with extraordinary decision, valor and enthusiasm. Altho' the shocks were bloody and the resistance great, the rebels were surrounded and completely dispersed, leaving in our hands about 1000 muskets, 800 prisoners, with 36 officers, 100 dead and 160 wounded, two colors and warlike stores. There has also remained in our possession, all the baggage of the enemy, from its chief, to that of the last soldier.—In the midst of so complete a victory, and which will always redound so honorably to our arms, we have to lament the loss of the prudent and brave Col. Don Leon Yturbe, chief of the staff of the army, and the gallant commandant of the battalion of Chasseurs, Gen. Don Josef Gomes del Corca, with 10 officers, 46 soldiers, and 70 wounded."

"For myself, observes the general, I am well, altho' two balls were fired at me by two villains, after they had surrendered, (but which only injured my clothes,) and whom, nevertheless, I suffered to live."

No official intelligence has been received, relative to the proceeding of the Congress of Verona, but the *Journal des Debates* has published an article apparently from authority, in which it was stated, that Alexander had announced to the Congress of Verona, his intention of entirely changing his system with regard to Turkey, and of employing forcible means to compel at last the barbarous government of Constantinople to make concessions.

News has lately been received from the African Colonization Society's new settlement, which is of a favorable nature. The name of this place is Liberia, it is situated on the South West Coast of Africa, near Mescurada. The place is found to be healthy, the colonists contented and prosperous, and a vessel is expected to sail soon, to add to their numbers, and furnish fresh supplies.

The Hon. Dixon Hall, a Member of the Senate of Connecticut, was lately deprived of life in a most distressing manner. Being at his factory, in Sterling, Conn. he observed a derangement in a band of one of the large drums, connected with the main shaft, and, with the intention of rectifying it, applied his hand, which was caught between the band and drum. His body was drawn with irresistible violence through an opening of ten inches in diameter, crushing the bones, and instantly depriving him of life.

A Challenge.—A "Vermont Yankee" has published a challenge to run a horse which is owned in Vermont, against any in Virginia for \$5000. "A Horse! a horse! my Kingdom for a horse!"

Several women have lost property in Philadelphia, in consequence of their reticules being snatched from them by robbers in the streets.

Quebec.—585 vessels arrived at Quebec the past season, bringing 10,471 emigrants.

The Rev. Dr. Allen, President of Bowdoin College, has now in type a work on Shipwrecks, comprising about 350 pages octavo, for the benevolent purpose of distribution among mariners.

Two thousand dollars have been subscribed in this city for the benefit of the family of the brave Lt. Allen, who was killed by the pirates.

Two lads, sons of Major C. Leppit, one aged about 12 years, the other 6, in sliding down a hill in Jewett's City, (Conn.) both seated on the same sled, were carried into the ice of an adjacent river, which gave way. The eldest caught his brother by one arm, swam to the edge of the ice, and placed him on it by a great effort. They were both rescued by a person in the neighborhood, who was attracted, by their cries, to the spot.

The Hartford Times states that a cabbage head was raised in East Granville, Mass. the past season, which measured, after all the loose leaves were taken from it, three feet 5 1-2 inches in circumference, and an apple, which weighed one pound 7 ounces.

American Wine.—A gentleman near Georgetown, (D. C.) has planted a small vineyard of about 5 acres. The vines are planted in rows, 12 feet apart, and 5 feet distant in the rows. Only one acre has begun to bear, and that produced about 390 gallons of wine the past season. A bushel of clusters of grapes yields 3 gallons of juice, and 3 vines produce, on an average, a little short of a bushel of clusters. These vines were put into a nursery in 1819, transplanted where they now stand in 1820, and began to bear in 1822.

Mr. Jonathan Smith, of this town, killed a swine last week, which he procured in April last from Captain Northey's farm in Boxford, and which then weighed about 30 lbs.; when killed, it was just ten months old, and weighed 353 lbs.—*Salem Gazette*.

An attempt was made to rob the mail on the 13th inst. near Petersburg, in Virginia. Logs were placed in the road so as to stop the stage, and three men made their appearance, one of whom presented a double barreled gun at the driver, calling upon him to deliver the mail, which the driver promised to do on condition of his life being spared. The driver caught the gun, and as the robber struggled to draw it back, struck him with a whip in the face, and by putting his horses to full speed, saved the mail.

Great Dealings.—A letter has been received from the acting Governor of the State of Ohio, directed to the Governor of the State of Pennsylvania, containing an offer from the former to exchange a map of Ohio for a map of Pennsylvania. The letter of the Ohio Governor caused a good deal of laughter in the House of Representatives on account of the trifling and trafficking nature of the proposition.

Government has purchased for 25,000 dollars, a steam-boat, which plies between Washington and Norfolk, to be employed against pirates.

The Dwelling House of Mr. Levi Scott, in Machias, with all his provisions, and most of his clothing and furniture, were destroyed by fire on the 7th inst.

William Berry, an American, was lately stabbed in the thigh by a Spaniard, at a house of ill fame in Newbern, N. C. in such a manner that he survived but a short time.

A fire broke out on the evening of the 15th inst. in Philadelphia, on Flintham's wharf, between Race and Vine Streets, which destroyed two block-maker's shops, a cooper's shop, and some other buildings, when its progress was arrested by the activity of the firemen.

State Moral Society.—At a convention of delegates from several moral societies in the state of New-York, held in the city of Albany, the 16th January, 1822, David Burhans, Esq. of the town of Bethlehem, Elisha Putnam, of the city of Albany, William Aikin, of the town of Greenbush, Rev. Thomas Holliday, of New Scotland, John L. Vicle, Esq. of the village of Waterford, John Lincklaen, Esq. of Cazenovia, and Jacob Hees, Esq. of Canajoharie, were appointed a standing committee for the ensuing year.

It was moreover resolved, that another convention be called, to meet in the city of Albany, on the last Wednesday of January, 1823: that the standing committee be directed to make the arrangements for the same: that the Rev. Thomas Holliday be requested to deliver the sermon before said convention; and that the Rev. Elisha Yale, of Kingsborough, in the county of Montgomery, be appointed his substitute.—*Albany Advt.*

BY T. G. FESSENDEN.

There is nothing better for a man than that he should eat and drink, and enjoy good in his labor.

Ecc. ii, 24.

With thankful heart to eat and drink,
Be happy while you can,
And reap the produce of your toil,
Is God's behest to man.

And he who thankfully enjoys
Each boon, which life affords,
With scant subsistence is more blest
Than misers with their hoards.

For only what we rightly use
Is really our own;
The rest is yielded to the winds,
Or left to heirs unknown.

Yet many a miser makes himself
A wretched guilty slave;
Although he cannot tell for whom
He toils and plays the knave.

Both soul and body he devotes
To Mammon and to care,
And gains alone the paltry post
Of steward to his heir.

To give some graceless wretch a chance
To dissipate his pelf,
He plots and labors till he brings
Damnation on himself.

With temperance then to eat and drink,
Be happy while you can;
Enjoy the produce of your toil,
Is Heaven's behest to man.

A man is always in a hurry to defend his weak side; and it is in some degree pleading guilty to be over hasty and solicitous in making a defence.

A man who is proud of his property will sometimes call himself poor that you may sooth his vanity by contradicting him. A great beauty, likewise, will pretend to believe that she makes an ordinary appearance, and

"In hopes of contradiction, oft will say,
"Methinks I look most dreadfully to day."

The most effectual way to mortify such persons is to pretend to believe them, and to acknowledge that there is some truth in their assertions.

When pleasure is a man's chief object, disappointment and vexation are his principal acquisitions. Intervals of lassitude will occur, which inflict punishment more heavy than justice would impose on the vilest criminal.

Some men in pursuit of pleasure despatch the senses, which are the only inlets to the enjoyments they are in quest of. They roar bacchanalian songs till deaf, smoke till blind, and drink till they have almost as little sensation as the clods of the valley.

"In wild excess the vulgar breast takes fire,
'Till buried in debauch the bliss expire."

If a despot should order men to punish themselves in that way he would justly be deemed a most terrible tyrant.

Those who in confidence of superior capacities or attainments, disregard the common maxims of life, should remember that nothing can atone for the want of prudence; that negligence and irregularity, long continued, will make knowledge useless, wit ridiculous, and genius contemptible.

From the Albany Daily Advertiser.

Geological survey.—The geological and agricultural survey of the Erie Canal route, undertaken under the patronage of the Hon. Stephen Van Rensselaer, having excited considerable expectation, it may be gratifying to our readers to learn the following particulars:—

The geological outline, proposed to be taken this season, has been attempted with some success. But the heavy and long continued rains, prevented Professor Eaton, and his assistants from proceeding any farther than Rochester. So far they traced the connected series of rock formation with the primitive rocks of New England. Excepting that the rocks constituting the Little Falls, and the Great and Little Noses, present such abrupt protrusions of a primitive stratum into a secondary district, that these localities require renewed and very particular examination.

The examination of the route, through to Lake Erie, will be made with particular care, during the next season. We believe the result of this survey is to be published in two parts: the first part (in about a year) will contain the geological part, embracing all the interesting mineralogical localities; together with those rules for ascertaining the true indications of the useful minerals, which are deduced from the experience and observations of distinguished geologists and miners. The second part (to be published in about two years) will contain the agricultural part. It will embrace a digest of all the experience which can be collected from the best practical farmers of the west. Also, complete analyses of all the varieties of soil, with their particular requisites, defects and excellencies. The indigenous plants along the whole route, will be carefully analyzed, and their scientific, as well as common English names will be given; together with the general qualities of each.

A small pamphlet will soon be published, copies of which will be distributed along the route, giving particular directions to those who may feel disposed to lend their assistance in aid of those practical sciences, which have a direct influence upon the well being of every individual in the community.

The remarkable exemption of the steam ship Robert Fulton from sickness, notwithstanding her frequent passage to and from New Orleans, Havana, and New York, is to be ascribed principally to the smoke, or the acid of smoke, called in chemical language the *pyroligneous acid*. The efficacy of smoke in destroying contagion has been tested on various occasions, particularly by Dr. Lind, who had a long and extensive experience on shipboard in tropical climates. The unusual healthiness of the crew of Capt. Cook, in the barque Endeavor, in her voyage round the world, may be brought as another instance of the salutary effect of smoke in the prevention of disease. During this voyage through various latitudes both of the frigid and torrid zone, out of a company of more than 120, and during a three years cruise, there were only four deaths, three of which were from accidents, and the other from consumption of the lungs. It was the frequent practice of Capt. Cook to kindle a fire in the well, at the bottom of the hold. In this way, the smoke penetrated every part of the hold of

the vessel, and the foul air being at this time rarified by the heat, was expelled in a great degree, and that which remained was purified by the action of the smoke, or the pyroligneous acid. Numerous instances might be adduced in illustration of this subject; but, as newspaper essays require to be short, what has been said may be sufficient. The writer, at some other time, will take occasion to show the efficacy of growing trees and vegetation of all kinds as preventive against summer and autumn disease, and will also point out the economy of nature in balancing the antidote to the bane of human life.—*Cahawba Press.*

That milk is often adulterated, or diluted with water, before it is delivered to customers we believe there is no doubt. Indeed, we have been well informed that there are persons who buy to sell again, and who sell at the same price for which they buy; relying for their profit upon the quantity of water which they can sell with it. It is an easy matter, however, for every consumer to ascertain whether he is imposed upon by adulterated milk: put a tumbler full in a situation exposed to the atmosphere; milk and water freeze at different temperatures they will therefore separate in the act of freezing, and the quantity of each can easily be ascertained.—*N. Y. Spectator.*

Bread.—The following important improvement in the composition of bread, the essential staff of life, deserves the attention of the community. It has lately been introduced into a respectable family in this city, and is pronounced superior to any other. Independent of a great saving, the bread is spongy, light and remarkably sweet.—1st. Take equal quantities of mealy potatoes and superfine flour.—2d. Peel and boil them, using the same water to make them in; which should be done as fine as flour.—3d. Add, (for three common loaves,) a tablespoonful of fine salt, and sufficient yeast.—4th. Mix the bread, and let it rise: bake it about one hour gradually.—*Albany paper.*

Sun Fish.—A fish of this rather uncommon species was caught, about a month ago, on the north of Shetland, and has been brought home by Captain Wilkinson, of the Greenland ship Mary Frances, of Hull. This fish, according to Dr. Shaw, is a native of the European seas, and from the singularity of its aspect, has long since attracted the particular observations of naturalists. Its general appearance rather represents the head of some large fish, than a complete animal, the body being short, and terminating abruptly on the hind part. Its skin is rough, and it is supposed to feed principally upon shell fish. During the night it exhibits a high degree of phosphoric splendor, from which, and its almost circular form, it has probably derived its name. The present specimen is about three feet four inches in length, and about two feet broad;—and its head bears no very distant resemblance to the countenance of an old man in a state of frightful distortion. This fish is sometimes observed to lie on its side, upon the surface of the water, and when taken it was in this situation. In the northern seas it is said to arrive to a vast size, and to have been found or 10 feet in length, and of the weight of 50 pounds.—*London paper.*

NEW ENGLAND FARMER.

Published every Saturday, by THOMAS W. SHEPARD, Rogers' Building, Congress Street, Boston; at \$2.50 per ann. in advance, or \$3.00 at the close of the year.

Vol. I.

BOSTON, SATURDAY, JANUARY 4, 1823.

No. 23.

DISEASES OF CATTLE.

SELECTED AND COMPILED FROM THE BEST AUTHORS,
BY THE EDITOR.

Catarrh, or Cold; Epidemical Cold; Distemper.

Colds are very common, particularly in wet or cold weather; and though they are often thought of too little importance to require particular attention, yet, by neglecting them, and suffering the animal to continue exposed to the weather, the most serious consequences may ensue. From such neglect we often find that the animal decays in flesh and strength, becomes hide bound, and has a rough staring coat; at length tubercles form in the lungs, the mesenteric glands become enlarged, obstructing the passage by which nutriment is conveyed to the blood: this is succeeded by atrophy, consumption and death. It is highly important, therefore, to attend to this disorder as soon as it is discovered; and it is asserted that more good may be done by nursing, placing the animal in a warm situation, giving him warm, nourishing fluids, such as gruel, infusions of malt, &c. than from any medical prescriptions.

Colds are, at some seasons, so prevalent, as to be considered epidemic and infectious. On such occasions they generally occur with great violence, and are accompanied by fever, and, soon after the attack, by considerable debility.

On the first attack, the animal appears dull and languid; the eyes are watery, and, sometimes, partially closed; the appetite is diminished; and, most commonly, it is attended with cough. Swellings under or below the ears, difficulty in swallowing, and a discharge from the nostrils are not unusual symptoms of the complaint. When catarrh prevails to this degree, it is generally named *influenza*, or *distemper*, and has been thought contagious; but this opinion has not been proved to be true.

With respect to the treatment of this disease Dr. White observes that the hot stimulating drenches, commonly recommended, are decidedly improper. Bleeding at the commencement of colds is generally proper; the only circumstance which indicates its impropriety, is considerable weakness and low condition. The quantity of blood taken should seldom exceed two quarts. If the animal is costive, give a laxative drink; but if he purges or scours, give the following powder in gruel:

Powdered ginger	-	3 dr.
Antimonial powder	-	2 dr.
Camphor	-	1½ dr.
Tincture of opium	-	½ oz.

To be repeated after eight or ten hours, should it be necessary. If there be any difficulty in swallowing, and particularly if it be considerable, the following liniment should be rubbed about the throat:

Take of oil of turpentine and any common oil, of each	-	-	1 oz.
Liquid ammonia, commonly called spirit of sal ammoniac	-	-	½ oz.
Mix.			

In common colds, however, says Dr. White, "I am inclined to believe that if the animal

were placed in a comfortable situation, and well attended to, medicine would be unnecessary. Even bleeding, in common slight colds, is seldom required; but should the animal, by a change of situation, become hot and feverish, should the eyes look red and the flanks move quickly, he should be bled freely; and if in any degree costive, the laxative [hereafter mentioned] should be given. When there are no feverish symptoms present the laxative should be mixed with some cordial medicine, such as an ounce of caraway seeds, and 3 or 4 drachms of ginger.

"When the influenza, or distemper, has not been attended to, or has been improperly treated at an early period, the animal becomes extremely weak, and every means must be employed to recruit his strength. On such occasions a tonic [such as the first mentioned prescription] may be given twice or three times a day, which in conjunction with a warm nourishing diet, and careful attendance, may ultimately effect a recovery.

If the animal should become costive, a mild laxative will be proper; about half a dose will be sufficient. If grass can be conveniently procured, when the animal is kept under cover a moderate quantity will be useful. In favorable weather, the field is the best place; but a sheltered and warm situation should be chosen.

LAXATIVE.

Sulphate of soda (glauber's salt)	1 lb.
Gruel	1 qt.
Powdered caraway seeds	1 oz.

Mix, for one dose.

Whenever the disease appears to be epidemic, preventive means should be adopted, which is more particularly necessary when rain and cold winds prevail. Catarrh or cold is often an insidious complaint, and, if neglected, may produce very serious consequences.

Whenever caraway or any of the aromatic seeds are employed, they should not be purchased in powder, as they do not keep well in this form.

Mr. Lawrence observes that "The influenza or epidemic cold arises from frequent changes of the air, and the prevalence of north-east and easterly winds. As a great number, whether of men or animals, may be seized with this species of catarrh, at the same time and for the same cause, it has been supposed contagious, which indeed, may probably be the case in its inveterate and putrid state. This disorder is most prevalent in the spring, which succeeds a mild winter, when particular care should be taken that cattle are not exposed to currents of air from the north-east. I have known a whole fold-yard of oxen, horses and cows, dangerously affected in one night."

Mr. Lawrence advises "if the animal shivers with cold, and has cold breath, give a quart of warm ale,* in which is infused a table spoonful of grated ginger, two of spirit of hartshorn, and one of laudanum, repeating it in six hours, if the chilly symptoms continue, allowing warm water and a deep bed of straw. If feverish heat

* Beer or warm water would answer probably as well.

comes on, give nitre in warm water: when fever becomes predominant, bleed two quarts, unless the animal be a milch-cow, which never ought to be bled but in extreme necessity, and one ounce of cream of tartar, in three pints of warm gruel, sweetened with honey or treacle, [molasses.] On recovery of the beast, accustom it to the air by degrees, and notwithstanding having been nursed in the house, it will again become equally hardy as before."

Peripneumony, Pleurisy, or Inflammation of the Lungs.

This disease most commonly occurs to working cattle from over exertion, or from being suffered to drink largely of cold water, immediately after working hard, and when in a state of perspiration. Its symptoms are shivering; loss of appetite; an appearance of anxiety or depression; an increased motion of the flanks, or quickness of breathing; cough; opening the mouth; a discharge from the mouth and nose of a glutinous nature; the inside of the nose red; eyes dull; pulse hard; mouth harsh and dry; skin stiff; cold extremities; body full as if swelled with herbage; holds its head low and moves with difficulty; costive; on lifting the upper eye lid its under surface will be found unusually red, sometimes approaching to orange. If the disease happens to a milch cow, she soon loses her milk; and the ears, legs and horns are generally cold.

Dr. White says, "early bleeding is the grand specific in this complaint; but it must not be done sparingly. A cow or ox in tolerable condition, may lose from four to six quarts with advantage; and, if the symptoms do not abate in four or six hours, the operation should be repeated, to the extent of three or four quarts, unless the animal faint; whenever this occurs, on any occasion, the bleeding of course must be stopped. Faintness, however, when the disease is really inflammation of the lungs, is by no means an unfavorable effect of bleeding; it is proof that the operation has been carried to its full extent, and a recovery is most likely to happen. A large seton should be put in the dewlap, and moistened with oil of turpentine; and the sides should be well rubbed with the following embrocation:

Take of flower of mustard	4 oz.
Oil of turpentine	2 oz.
Water of ammonia	2 oz.

The whole to be mixed with as much water as will bring it to the consistence of cream.

Immediately after bleeding, give the following drink:

Take of camphor	-	2 dr.
Nitre	-	1½ oz.
Powdered caraway seeds	-	1 oz.

To be given in a pint of gruel.

"Should the animal be costive, a clyster should be administered, consisting of about three or four quarts of warm water, and half a pound of common salt. A pint of castor oil, also, may be added to the above drink; if this cannot be procured, sweet oil, linseed oil, or even melted lard may be substituted.

"It is a bad plan to take only a small quantity of blood daily, or every other day as has been advised; for though it may sometimes retard the progress of inflammation, yet the animal will eventually be destroyed by it. Stimulating or heating medicines are highly pernicious.

"Inflammation of the lungs is a term, that has unfortunately been too often applied to diseases of a different kind; and it is from this error perhaps, that strong stimulating medicines have been recommended on such occasions.—There is an affection of the lungs and parts connected with them, which will not admit of the copious bleeding I have recommended; but the symptoms are widely different. There is not that difficulty and quickness in breathing; the pulse is weak, but not much quicker than usual; the kernels or glands, about the throat, are often swollen; sometimes there is considerable difficulty in swallowing, which is particularly seen when the animal attempts to drink: in short this is nothing more than a severe degree of catarrh or cold; but, even in this complaint, moderate bleeding is necessary, and powerful stimulants are extremely pernicious.—When the disease, however, has not been discovered for some days, and the animal appears much weakened by it, bleeding is of course improper." (TO BE CONTINUED.)

Massachusetts Agricultural Society.

The Committee on Agricultural Experiments submit for the consideration of the Board the following, in addition to their report dated the 10th day of October last, to wit:

That Col. Joseph Valentine, of Hopkinton, is entitled to the society's premium of \$30, for having raised the greatest quantity of Indian Corn, being 119 bushels and 26-32 of a bushel, on one acre of land. "The soil is a deep yellow loam—in 1821, the land was cultivated with Indian corn, and manured with ten cart loads of green barn manure, spread on the ground, and eight loads of compost manure put in the hills. In the spring of 1822, the ground was twice ploughed, and 20 cart loads of green barn manure spread on it—it was then furrowed in rows about three feet and a half apart; and about 20 cart loads of barn, hog and slaughter yard manure, were put in the rows; the last mentioned manure was mixed together, with one hoghead of Smithfield lime; the seed was the Brighton twelve rowed yellow corn, the kernels placed about 8 inches apart each way—the corn was hoed three times, all the suckers were pulled out in July; and in August all the suckers were again taken away, together with the false stalks, and those that were sautty; on the first of September the stalks were topped; and on the 26th the corn was harvested, and spread on a floor under the roof of a long shed, to give a good opportunity for drying it—there were 213 bushels of corn in the ear; one basket of which was shelled, and produced half a bushel and two quarts of shelled corn; so that had the whole been shelled on the day of harvesting it, the produce would have been 119 bushels and 26-32 of a bushel of shelled corn—on the 14th of Nov. the whole was shelled, and measured, and found to be 116 bushels and 28-32 of clear sound corn; the average weight of which was 58 to 59 lbs. the bushel—the entire expense of cultivating this acre of corn, including \$35, charged for 40 cart loads of manure, was \$44."

That Payson Williams, Esq. of Fitchburg, is entitled to the society's premium of \$30, for having raised the greatest quantity of Spring Wheat, being 23 bushels and 28-32 of a bushel, on one acre. "In the spring of 1822, as early as the frost would permit, the ground was ploughed, and harrowed; the seed, two and a half bushels of the Gilman wheat, sown; again harrowed, and ploughed in fine, with a horse plough, and left in this situation with the belief that the crop would endure our New England drought better, as the surface would be enlarged, thereby retaining more of the dews than a plane surface; the result, compared with neighboring fields, declares this belief not unfounded. As the field was seeded down with clover, herdsgrass, and red-top, this was also ploughed with the wheat; these plants not only stood the drought remarkably well, but at this time have completely covered the ground with the *Farmer's best carpet*. The quantity of grass-seed used by me, is never less than 12 lbs. of clover, and one peck of herdsgrass, to the acre. Here permit me to observe that innumerable are the instances in this country, where the farmer fails in his grass crops, by not allowing seed enough; and what is worse, the little he does give with such a sparing hand, is suffered to take its chance under that pest in agriculture called a bush harrow, which not only drags stones, and other loose matter, into heaps, but leaves the soil dead and heavy; and does not cover the seed deep enough to strive with our July drought effectually. It may be asked how the scythe is to follow the plough? to which I will answer, let the roller, an implement which every farmer would keep, did he consult his own interest merely, with a sufficient top or body to contain the larger stones, pass over the field lengthwise the furrow, in the dry part of the fall; this process will not only crush in the small ones, but even the surface for the scythe, without the least injury to the grass roots—to this digression I am impelled by no other motive, however much I may be mistaken, than the wish of advancing in some measure, the interests of my fellow citizens, whose good fortune it is to till the soil.—I had the wheat cut very early, when much of the straw was green, which, after laying about two days, was in excellent order for the flail; after which it was equal to swail hay for fodder—the amount of grain by measurement was 26 bushels and 18-32, from one acre and 18 rods—the quality of the grain is excellent, not one kernel of smut or burnt grain in the crop—the seed prepared by a thorough washing, after which it was immersed in thick white wash, made from good lime, so as to coat over every kernel—no fears need be entertained from the plentiful use of this liquor, as by way of experiment I have planted wheat after its lying in this liquor four days, which vegetated well." The committee are of opinion that the roller should be used immediately after the seed is ploughed in, in preference to the fall, as recommended by Mr. Williams. Said Payson Williams is also entitled to the premium of \$20, for having raised the greatest quantity of Potatoes, being 517 bushels, on one acre. "The land was twice ploughed, and furrowed three feet apart, and the manure, unfermented, made by sheep, and neat cattle, its quantity about 14 cords, placed in hills two feet apart, hands immediately following the cart with hoes to finish

the planting process, to prevent loss by evaporation—planting finished May 21—the kind of seed used, was the South American reds, 28 bushels to the acre, cut so as to allow two pieces to the hill—the weeding finished the 15th of June—the second and last hoeing the first of July, the vines beginning to bud, and were about eight inches in height; a few scattering weeds were occasionally pulled up, but no other disturbance was given to the vines till harvesting the crop, which was finished November the 3d; and by a careful measurement was found to be 517 bushels—the expense of cultivating the acre of wheat, including \$10 charged for the manure, was \$24.71—that of cultivating the acre of potatoes, including \$14 for manure, \$51."

That Mr. David Little, of Newbury, is entitled to the society's premium of \$20, for having raised the greatest quantity of Mangel Wurtzel, being 970 bushels, and one half of a bushel, on one acre. "The situation of said acre is as follows—a swell inclining south-westerly, of a rich yellow loam—in 1821, it was planted with beets, manured with about three cords of compost manure, and produced about 530 bushels. May 9th, 1822, ploughed, harrowed and furrowed three feet apart; four and a half cords of compost manure were put in the furrows and covered with a plough; then a harrow was drawn lengthwise the ridge to smooth the land, the seed was then sowed one row on each ridge, with four pounds of seed—half the quantity would I think be sufficient—June 10th, commenced ploughing between the rows, and weeding, and thinning at different times till July 16th—the plants stood 10 or 12 inches apart in the rows—the work was done principally by boys, estimating two boys to be equal to one man.—Oct. 31, Nov. 1st and 2d, they were harvested by men and boys, and produced 970 1-2 bushels of Mangel Wurtzel, besides 2 bushels of Carrots, and 109 Cabbages—three loads of the Mangel Wurtzel containing 137 bushels, were weighed at the town scales; the weight, according to the certificate annexed, was 3 tons, 2 c. 3 qs. 20 lbs.—Six swine mostly fed with the thinnings from the beginning of weeding, until about the first of October—there are trees on the said lot sufficient to produce 21 barrels of fruit—the entire expense of cultivating this acre of Mangel Wurtzel, including the cost of the manure and gathering the crop, was \$23 26 cents."

That Mr. Adams Knight, of Newbury, is entitled to the Society's premium of Twenty dollars, for having raised the greatest quantity of Onions, being six hundred and fifty-one bushels, on one acre. "The soil is a rich gravelly loam, with a gravel bottom; in 1821, it was cultivated with onions, and cabbages; and was manured with about five cords of barn manure, and produced a good crop—after the crop was off the ground, there were five cords of barn manure, and two and a half cords of leached ashes ploughed in—in April 1822, it was once ploughed, and sowed in rows 14 inches apart, which took between 3 and 4 pounds of seed—in the course of the season it was hoed between the rows and weeded four times—in September the onions were harvested, and there were 651 bushels—the entire expense of cultivating this acre of onions, including 21 dollars and 37 cents, the cost of manure, was 57 dollars and 38 cents."

That Messrs. Tristram and Henry Little, of Newbury, are entitled to the Society's premi-

um of Twenty dollars, for having raised the greatest quantity of common Turnips, being 687 bushels and a half on one acre. "The soil is a clay loam and had been down to grass 6 or 7 years—in 1821, cut about one ton of hay; it was then ploughed as deep as the sward would turn over; 10 cords of compost manure, the principal part of the compost was marsh mud, spread and well harrowed; it was ploughed in ridges three feet apart; about one pound of seed was sown with a machine on the ridges;—and a hand roller made to pass over them, which completed the sowing—when out of the way of the fly, they were thinned to the distance of one foot apart on the ridge—they were twice ploughed and harrowed; and harvested the last of October—the entire expense of cultivating this acre of Turnips, including 20 dollars for manure, was 35 dollars and 82 cents."

That Silas Little, Esq. of Newbury, is entitled to the Society's premium of Twenty dollars, for raising the greatest quantity of common Turnips, after another crop in the same season; having raised 615 bushels on one acre. "In the year 1821, something less than a quarter part of the acre was cultivated with Turnips, and about five common cart loads of compost manure, such as salt marsh pulverized, strong earth and sand was laid thereon; the produce was 80 bushels, the other three fourths had been laying to grass five or six years; and the present year we sowed Flax seed, where the turnips grew the last year; having spread on about the same quantity and quality of manure as before; we pulled the flax soon after the blossoms had fallen off, and there was a middling crop; the other part of the acre produced about 700 weight of hay, which was cut on the 26th of June; and the whole was ploughed and manured—the quantity put on the acre was 19 cart loads, of 40 bushels each—the quality of this manure was similar to that above described, but more sand in order to make the compost better, when mixed with our dark clay loam, with a clay bottom; nearly two thirds of this manure was spread on one half the ground, and after harrowing, was put into small ridges, with a small double mould board plough, two feet and nine inches apart; the other part of the manure was shovelled into furrows made with the plough, the same distance; the plough then passed between the furrows, covered the manure, and although so great a portion of the manure was spread on half the land, yet the other half produced about as much—the quantity of seed used was one pound and a half; the time of sowing was from the first to the tenth of July—the flax was pulled the 4th, and that part of the ground sowed the last; the whole was sown with a machine made for the purpose, and but one row on a ridge—when the turnips were up, and out of the way of flies, they were thinned with a hand hoe and fingers, at the distance of ten or twelve inches, and afterwards twice hoed and twice ploughed, with the small plough above mentioned—the time of harvesting, from the 28th of October to the 1st of November, and there was found to be 615 bushels, well trimmed and fit for market, and about five or six bushels of large defective rotten ones—we have weighed several bushels, and find a bushel will weigh 59 lbs.—the entire expense of cultivating this acre of turnips, including thirteen dollars for manure, was twenty-eight dollars and seventy-five cents."

That Mr. Asa Rice, Jr. of Shrewsbury, is entitled to the Society's premium of Twenty dollars, for the account of the best mode of rearing, feeding, and fattening Neat Cattle. Said Rice is also entitled to the premium of Twenty dollars, for proving by experiments, to the satisfaction of the Trustees, the utility and comparative value of the Cobs of Indian Corn, when used with or without the grain itself, ground, or broken. A paper on the subject of raising Indian Corn, two successive seasons, with the aid of Plaster Paris, on a high hill on the farm of Mr. Rice, which from its difficulty of approach, had until two years since been neglected, was also exhibited. These communications are too lengthy to be inserted in this report, but your Committee recommend that said papers, together with three very interesting communications from William Hull, Esq. of Newton, on the best mode of raising Indian Corn,—his mode of cultivating seven eighths of an acre, from which he procured 192 bushels of Corn in the ear, 4 bushels of dry Beans and several bushels of Turnips—and on the culture of Carrots, and Ruta Baga, be copied into the Society's Journal for January next.

Claims for premiums were also exhibited to your Committee by the following persons, for raising the greatest quantity of Indian Corn, on one acre of land, to wit: Mr. Asa Rice, Jr. of Shrewsbury, raised 53 bushels; Mr. Nathan Howe, Jr. also of Shrewsbury, 75 bushels; Mr. Daniel Mears, of Lynn, 87½ bushels; Messrs. Tristram and Henry Little, of Newbury, 116 bushels and 3 quarts; Payson Williams, Esq. of Fitchburg, 116 bushels and 12 quarts; and Mr. Daniel Burnham, of Newburyport, 117 bushels and 8 quarts. Mr. Jacob Wilkins, of Marblehead, raised 57 bushels of Barley, on one acre and ½ of an acre. "April 12, 1822, the land was ploughed about 8 inches deep, the soil loamy, inclining to gravel, descending to the North East from a ledgy knoll, which included a part of the premises; 13th, sowed three bushels of six rowed Barley, on what I considered the largest half of the piece—at the same time sowed one and a half bushels of two rowed Barley, on the remainder; sowed grass seed over the whole, and ploughed, and harrowed the same in. When the six rowed Barley was about six inches high, it was mowed down, and left on the ground; this was for experiment.—July 18, mowed the six rowed Barley, and put it into the barn. 21th, mowed, and put into the barn, the two rowed Barley. The six rowed Barley appeared to be about 12 days forward of the two rowed in ripening—both were stacked separately in the barn; and each quality thrashed and kept separate. August 30th, the Barley being cleansed, was measured—the six rowed measured 34 bushels; and the two rowed measured 23 bushels—the straw we consider in value to be equal to the labor." No premium was offered for raising the greatest quantity of Barley; but your committee are induced to recommend that the Treasurer be authorized to pay said Jacob Wilkins, the sum of Twenty dollars.

For raising the greatest quantity of common Beets, Parsnips, Ruta Baga, Cabbages, and dry Peas—for introducing any Grass not before cultivated in this Commonwealth, and proving by actual experiment, and produce satisfactory evidence of its superiority in any one quality, to

any now cultivated—for the most satisfactory evidence on "Soiling Cattle," not less than six in number, and through the whole season, together with a particular account of the food given, and how cultivated—for making the experiment of turning in green crops as a manure, on a tract not less than an acre, and prove its utility and cheapness, giving a particular account of the process and its results—for proving by actual experiment, the best season and mode of laying down land to grass, whether Spring, Summer or Fall seeding be preferable, and with or without grain or different soils—for raising the greatest quantity of Vegetables, Grain, Peas and Beans excepted, for winter consumption of the stock on his own farm, and not for sale, in proportion to the size of the farm and stock kept, having regard to the respective value of said Vegetables as food, stating the expense of raising the same, and the best mode of preserving the same through the winter—for taking up in one season, on his farm, the greatest quantity of good Honey, and shall at the same time, exhibit superior skill in the management of Bees—for giving proof of having produced the largest quantity of dressed Flax raised on one acre: no claims for premiums have been exhibited.

The Board will perceive by the papers accompanying this report, that of the seven claimants for the premium for raising the greatest quantity of Indian Corn on one acre, the quantity produced by four of the competitors was very nearly the same. Your Committee in awarding the premium to Colonel Valentine, were induced to decide in his favor as well from the quantity of sound corn, as from the weight of the grain; it will be seen that Mr. Burnham's Council Bluff Corn, weighed only fifty pounds; that of Col Valentine, fifty eight to fifty nine pounds the bushel.

For the Committee,
THOMAS L. WINTHROP, *Chairman*.
Boston, Dec. 28, 1822.

From the Northampton Gazette.

MR. EDITOR—In some places I have known a very simple expedient made use of for the security of Churches against fire, when neighboring buildings are burning. This is, the providing two or three barrels of brine and placing them in some convenient part of the steeple.—If at any time the fire should endanger the church, a few men, with buckets, posted at the barrels, might be of great use. Brine possesses many advantages over water, for such a purpose. It may be kept through the winter without freezing—through the summer without becoming brackish or offensive; and is, as is well known, much more efficacious in quenching fire. The expense can certainly be no objection.

PENNY WISE.

French chesnuts.—At a meeting of the Philadelphia agricultural society, Nov. 19th, specimens of large French chesnuts were shown, which grew near Wilmington, (Del.) The tree was planted in 1806, and first bore fruit in 1816. The nuts came from France. In 1820 one nut was selected from a burr containing two others, which weighed more than 20 pennyweights. In Spain, Italy, and the south part of France, these chesnuts are said to constitute the principal part of the food of the peasantry.—*Ibid.*

Extracts from an Address delivered before the Worcester County Agricultural Society; by Hon. LEVI LINCOLN.

"The necessity of labor is interwoven with the condition of man; and its results are made inseparable from his very existence. Yet amidst the artificial arrangements of society, in which individual situation is so widely varied, and the immediate supports of life so differently derived, men do indeed appear to have lost sight of the first sources of subsistence, and to regard with indifference, or as of subordinate concern, the only means by which, under Providence, their lives are upheld. While enjoying the *wealth* which Commerce bestows, and the *honors* which Learning and Professional Eminence confer, the *Art of Husbandry*, and the humble employments of Manual Labor, are regarded but as of little moment. It is hardly considered that even *Commerce* consists in an exchange of the productions of the soil, and that the cultivation of the ground has preceded, in all ages, that state of civilization upon which Learning and all the distinctions of society are founded. The necessity, value, and the virtue of labor upon earth, are as certain as all earthly objects are important. Whoever doubts of this, need look no further for conviction than to the *savage* state, where man, for *food*, eats man—where letters and the arts are unpractised and unknown—and where, in the instinct of nature only, man lives a rude, fierce *animal*, and dies unconscious of intellectual and immortal being. To vindicate the arts of Husbandry, and the pursuits of Agriculture, can therefore neither be necessary, nor becoming the age in which we live. If civilization be a blessing, then is the agricultural state, which can alone uphold it, a primary good;—if the capacity of mind and the powers of intelligence constitute the superiority of human nature, their *exercise* will furnish to every man the highest assurance of the sources of their cultivation, and of the means, the scope, and the end of their improvement."

"While, in many of the most fertile parts of our country, the *grower* of the produce is either unable to make sales, or must receive the avails reduced by the charges of tedious and expensive transportation, and the commissions of consignees, agents and factors—a direct and ready disposition of the surplus of our farms, most generally, may be made at the very door of the farmer, or, at *his election*, may be carried, by his own domestic means of conveyance, at a profitable advance, to a sure, quick and not far distant market in the capital of the State. Strange, that so obvious an advantage should not be more highly appreciated! Of what avail is it that the boasted land of the *West* will produce its *hundred-fold* to labor, in comparison with the stubborn soil of our home, if the use for the product be limited by the consumption of the grower? Is it that there is a deficiency of that whereon to live, that the spirit of emigration has gone forth, to redeem the wilderness from the savage, and to reduce the waste to cultivation? What, though the hills are covered with verdure, and the vallies are filled with corn—if the value be in the inverse ratio with the plenty, how does the abundance advance the interest of the cultivator? Wherefore is it of consideration with him, that his garners should overflow, if the price be low, or there be no purchaser for the commodity? Be it, that he is

spared the hard labor of tillage, is there not a counterpoise in the privations of solitude, and in the loss of the aids, and comforts, and improvements of society? Ask the returning Emigrant from the *West* or the *South*, which *now* he most highly appreciates—the rough and hard, but vigorous soil of the *East*, with the necessity of labor to subdue and improve it, and the conveniences and pleasures of social intercourse for his recompense—or extent of territory, useless fertility and idleness, in a situation where neighborhood is unknown, the means for the education of children are denied, and opportunities for moral instruction and the public worship of God unenjoyed? Again: address yourself to his calculations of interest, and demand of him, upon his *practical experience*, in which is most profit, the smaller quantities of grain, at their greater value *here*, or the greater abundance at the diminished prices *there*?—his *one* bushel of corn, worth one dollar, raised for the home market *here*, or his *six* bushels to one, worth twelve and a half cents per bushel, grown for exportation *there*? Nor let your inquiries be thus easily satisfied. Hear from him the sufferings to which first settlers are exposed, of the terrors of the war-hoop, and of the wild beasts' howl—learn the new and painful diseases which an unused climate generates, and for which, with "the thousand ills which flesh is heir to," there is no helping, healing aid at hand. Then, when thus prepared for just comparison, turn to your own situation, and say, why have you not all which in human condition should make satisfied? Why leave the land of your nativity, and of generous reward to your exertions, rather than enrich it by your industry, and endear it by your labors?"

"*Habit and prejudice* are powerful opponents to improvement, and they are in a great measure incident to the business of Agriculture. The cultivation of the earth, is a *practical* lesson, taught to the Husbandman in earliest life. He is instructed in the ways of his father, and the *mode* which experience has approved as safe, will be reluctantly yielded to the mere promise of experiment. Hence, from generation to generation, men pass on in the track of their predecessors; believing that the path which is explored, is in the only direction to their object, and that those who deviate, wander to their destruction. To conquer this stubborn habit of reflection is the greatest effort and best result of Agricultural Associations. In vain may the *tongue* and the *pen* be employed to satisfy the practical man of the errors, which a life of labor has confirmed, and the experience of ages has consecrated. He is either deaf, and blind, and dumb to your appeals, or answers you in the language of distrust, and with the reproach that they are theories of idle speculation only. But make for him the experiment, explain to him the method, exhibit to his natural senses the successful result—he will hesitatingly yield credit to ocular demonstration, and tardily follow in the footsteps of improvement.

"Of the same pernicious tendency with confirmed habits in the *mode* of husbandry, is prejudice for *form, size, or color*, over useful properties, in domestic animals. Forgetting the trite saying, "that handsome is which handsome does," (the Ladies will pardon me—this vulgar adage is applicable only to brutes,) farmers

are too prone to consult *fancy* rather than *judgment*, and to prefer the beautiful, though indifferent in quality, to the more valuable of ordinary appearance. This bad taste is to be overcome by a sense of *interest*. When it shall be known that the *form* we least esteem may be best adapted to labor or fatten—that the *color* we most dislike is the characteristic of a breed by far the most productive to the dairy, the standard of excellence will become that of profit—and the kind which is best fitted to our particular object will be the first sought for attainment. The enlightened Agriculturalists of Europe, with the nicest care, select their breeds for the peculiar qualities they desire; and so distinctly preserved are they to the use for which they are obtained, that the characteristic husbandry suited to soil and situation in different districts, can be readily determined by a passing observation of their cattle only. In this respect, we are vastly behind the Farmers of England. While good animals of the ordinary race are common and cheap with them as with us, the immense prices which they willingly pay for the more rare and valuable breeds bear strong proof of their superior discernment, or better spirit of improvement. Happily here, also, correct opinions are becoming influential, and that *prejudice*, or *false economy*, which has hitherto excluded from our possession the finest stock of Europe, is yielding to a generous enterprize in its introduction, and to a liberal encouragement of the best means of improving our own race of valuable animals.

"One other most obvious impediment to our agricultural advancement, is of so general endurance, yet so easy of corrective, that I must solicit your patience, while I briefly notice it. The use of implements of husbandry of imperfect construction, or in bad condition, it is confidently believed, is a greater annual tax to the yeomanry of the country, than all the assessments imposed by law. The hindrance to labor *in time*, the greater hardship of its accomplishment, and its less effectual operation, by the "togg'd chain," the "rack'd cart," the "dull plough," the "toothless harrow," the broken *hoe*, and *spade*, and *rake*, and *fork*, if kept in accurate account by each individual, would present an aggregate of loss reproachful to many, and criminal even to the most careless. Good instruments in the business of husbandry, are no less important than in the mechanic arts; and to Farmers I appeal, what mechanic would they give employment in the use of tools out of order? or, what compensation would they make him for time spent to repair them? The great advance in agricultural skill, within the few last years of spirited enterprize, has been attended with corresponding improvements in implements to facilitate labor; and it is as decidedly for the interest as it is for the comfort of the husbandman, to possess those of the most thorough and approved models."

From the Metropolitan.

PLANTING OF STONE FRUIT.

On this subject, one pertinent fact faithfully related, is worth forty curious conjectures, and the following is such an one. On the 28th day of November, 1775, I removed a cherry-tree, the body of which was thicker than the calf of my leg, and on the 10th of June next following, gathered six pounds of very fine cherries from

that is six months and fourteen days from planting of the tree. Now, if this be an extraordinary fact, may we not set down the 28th of November as the best day in the year for planting cherry-trees? The hole in which this was planted, was dugged about eight inches deep: and a stake firmly fixed near the middle of it. The tree was then bound to the stake, so that the roots were four inches shallower than they stood where the tree grew originally.—The earth was then thrown into the hole until it was level with the surface of the ground and immediately plentifully watered so as to carry the earth among the roots: and then while the surface was yet wet, about eight inches more earth was added, which consequently covered the body of the tree so much deeper than it grew, yet leaving the roots not so deep as they grew. Conjecture may be allowed to say, that the season vegetation had entirely ceased, and the buds for next year's growth were perfectly formed, and ready to grow with the first appearance of the spring. Young peach-trees, moved but a small distance, at the time their blossoms are just beginning to open, will sometimes ripen their fruit the same fall; but their growth in the next year, will not be so vigorous as of those planted between the middle and the end of November, or those planted early in the spring. The essential points in planting of fruit-trees, are, that they be planted rather shallower than they originally grew—that they are kept firm and steady in their places, and, that the water run from them both in the winter and the spring, rather than toward them. There is one observation in an old almanac, perhaps twenty or thirty years old, that is well worth remembering, because it is true, that "a free use of fine ripe fruit in this country, would on an average, add seven years to the life of each citizen, in addition to the advantages of sound health, and the indulgence of the highest luxury the world ever did or can afford." T. G.

FACTS AND OBSERVATIONS RELATING TO
AGRICULTURE & DOMESTIC ECONOMY.
FOR THE NEW ENGLAND FARMER.

VETERINARY COLLEGES—CATTLE-MEDICINE, &c.
An English writer says "The establishment of a veterinary college has had the very useful effect of turning the attention of a far greater number than formerly, of medical men, to veterinary pursuits and inquiries, and, in a great measure, to wipe away that false sense of shame, which many gentlemen of the faculty entertained at the idea of becoming horse and cow-doctors; a most groundless prejudice in any view, particularly when it is considered, that men of the first rank and fortune in the country, think no degradation, but a useful and patriotic employment, to obtain personal and practical skill in the management of live stock.

"The faculty of cattle-doctors, I shall hope, may be considerably improved by the addition and presence among them, of a number of regular professional men, in various parts of the country; indeed whatever turn improvement may take, the former must be generally dependent upon for a length of time. And in remote and secluded parts of the country, where even the lowest practitioners are not to be found, it inevitably results that the proprietor, or his servants, must fill the office of doctor to the flocks and herds.

"Let the proprietors of cattle renounce, forever, the insane folly of offering premiums for specifics to cure incurable diseases! and the hope of providing medicines, which, by a miraculous operation, will enable men to continue in the habit of exposing their animals to the constant risk of such diseases: for example, sheep in those situations, which nature has decreed shall forever rot them. Prevention of disease is alone a grand improvement of the breed. It is a great profit; for in case of general disease in a flock or herd, we are not only to reckon the loss of those individuals which die, with the doctor's bill, and our own servants' time and attendance, but the loss of time and thrift in the survivors, sometimes the heaviest loss.

"Upon every farm, it is truly necessary to the well being of the cattle maintained, that there be houses or sheds, sheltered yards, and spare inclosures, for the comfortable reception of the diseased. The want of such conveniences, or an indolent prejudice against the use of them, is in itself a real malady, and one great cause why slight affections grow into incurable diseases. The proper instruments of administration or operation, should also be provided, and always ready for use; and where much cattle is kept, it would be of considerable benefit to set apart a piece of garden ground for the production of medicinal herbs, for though botanical simples are justly rated by modern practice far below their ancient character, yet infusions or decoctions of them, are excellent vehicles in cattle medicine for articles of superior efficacy, and, in fact, as I have often experienced, some of them possess, in a considerable degree, the virtues attributed to them."

Another writer observes—"It is well known, that uneducated farmers are fond of mystery in medical matters; and this very naturally, as they have always been led to believe that, for every disease, there is an infallible remedy, termed a receipt; and the more numerous the ingredients are in that receipt, the higher opinion have they of its efficacy. Upon this principle, perhaps it is, that the cow-doctor, or cow-leech as he is commonly termed, generally obtains their confidence; while the veterinarian, who adopts a more simple mode of treatment, relying wholly, perhaps, upon bleeding and a proper regulation of diet, does not appear to them sufficiently skilful; and any attempt he may make to explain the nature of the disease, or the principle upon which he acts, would be quite unintelligible. With respect to the qualifications of those cow-doctors, it is unnecessary to say much, in the operative part of the art, they are useful in a certain degree."

ARRANGEMENT OF AGRICULTURAL LABOR, AND DOMESTIC MANAGEMENT.

"At the foundation of a proper arrangement, it is necessary to have a plan of the farm, or at least a list of the fields or parcels of land into which it is divided, describing their productive extent, the soil, the preceding crops, the cultivation given to each, and the species and quantity of manure they have, severally, received. The future treatment of each field, for a succession of years, may then be resolved on with more probability of success.

"With the assistance of such a list, every autumn, an arrangement of crops for the ensuing

year, ought to be made out; classing the fields or pieces, according to the purposes for which they are respectively intended. The quantity of each crop, whether arable or meadow [plough land or mowing] as well as the extent of ground intended for pasture, will thus be ascertained. It will not then be difficult to anticipate what number of horses [or oxen] and laborers will be required during the season; nor the stock that will be necessary for the intended quantity of pasture land. The works of summer and harvest will be foreseen, and proper hands engaged in due time to perform them."*

As nothing contributes more to facility and satisfaction in business, than to prepare for what must be done, a farmer should arrange his plans regarding his crops, for three or four years; regarding team labor, when frost and bad weather do not intervene, for as many months; and regarding hand labor for as many weeks, according to the season of the year.—"A general memorandum list of business to be done," is therefore essential, that nothing may escape the memory, and that the most requisite work may be brought forward first, if suitable to the state of the weather. In this way, the labor will go on regularly, and without confusion, and a proper attention and force may be applied to every part of the farm.

The following rules, connected with the arrangement, and the successful management of a farm are particularly to be recommended.

1. "The farmer ought to rise early, to see that others do so, and that both his example be followed and his orders obeyed. In the winter season breakfast should be taken by candle light, by this means an hour is gained, which many farmers lose by indolence; though six hours in a week are nearly equal to the working part of a winter day. This is a material object where a number of servants are employed.

2. "The whole farm should be regularly inspected, and not only every field examined, but every beast seen, at least once a day. On a large farm, the whole day may be well employed in such essential duties.

3. "In a considerable farm it is of the utmost consequence to have the servants specially appropriated for each of the most important departments of labor; for there is often a great loss of time, where persons are frequently changing their employments. Besides, when the division of labor is introduced, work is executed not only more expeditiously, but also much better, in consequence of the same hands being constantly employed in one particular department. For that purpose, the ploughmen ought never to be employed in manual labor, but regularly kept at work with their horses [or oxen,] when the weather will admit of it.

4. "To arrange the operation of ploughing according to the soils cultivated, is an object of essential importance. On many farms there are fields, which are brought to a situation unfit to be ploughed, either by much rain or by severe drought. In such cases, the prudent farmer, before the wet season commences, will plough such land as is in the greatest danger of being injured by too much wet; and before the dry period of the year sets in, such land as is in the greatest danger of being rendered unfit for ploughing by too much drought. On farms where these rules are attended to there is ad-

* Marshall on Landed Property.

ways some land in a proper condition to be ploughed; and there is never any necessity, either for delaying the work, or performing it improperly.

5. "Every means should be thought of, to diminish labor, or to increase its power. For instance, by proper arrangement, five horses may do as much labor as six perform, according to the usual mode of employing them. One horse may be employed in carting turnips during winter, or in other necessary farm work at other seasons, without the necessity of reducing the number of ploughs. In a hurried season, when driving dung from the farm yard, three carts may be used, one always filling in the yard, another going to the field, and a third returning; the leading horse of the empty cart ought then to be unyoked, and put to the full one. In the same manner, while one pair of horses are drilling for turnips, the other three horses may be employed in putting the dung upon the land, either with two or three carts, as the situation of the ground shall require. By extending the same management to other farm operations, a considerable saving of labor might be effected.

6. "A farmer ought never to engage in a work, whether of ordinary practice, or of intended improvement, except after the most careful inquiries; but when begun he ought to proceed in it with much attention and perseverance, until he has given it a fair trial.

7. "It is a main object in management, not to attempt too much, and never to begin a work, without a probability of being able to finish it in due season.

8. "Every farmer should have a book, for inserting all those useful hints, which are so frequently occurring in conversation, in books, or in the practical management of a farm. Loose pieces of paper are apt to be mislaid or lost, and when a man wishes to avail himself of them, for examining a subject previously investigated and discussed, he loses more time in searching for the memorandum, than would be sufficient for making half a dozen new ones. But if such matters are entered into a book, and if that book has an index, he can always find what he wants, and his knowledge will be in a progressive state of improvement, as he will thus be enabled to derive advantage from his former ideas and experience.

"By the adoption of these rules, every farmer will be master of his time, so that every thing required to be done, will be performed at the proper moment; and not delayed till the season and opportunity have been lost. The impediments arising from bad weather, sick servants, or the occasional and necessary absence of the master, will in that case, be of little consequence, nor embarrass the operations to be carried on; and the occupier will not be prevented from attending to even the smallest concerns connected with his business, on the aggregate of which his prosperity depends.

"Besides, an arrangement for carrying on operations without, a settled plan for the management of the family within, ought not to be neglected. In regard to house-keeping, the safest plan is not to suffer it to exceed a certain sum weekly, stating the value of every article from the farm. An annual sum should be allotted for dress, and the personal expenses of the farmer, his wife and children, which ought not to be exceeded. The whole allotted expense

should be considerably within the probable receipts; and at least one-eighth of the income actually received, should be laid up for contingencies, or expended in *extra* improvements on the farm, if it belongs to the farmer in property, or is held for a term of years."

TO THE EDITOR OF THE NEW ENGLAND FARMER.

I desire through the medium of thy useful paper, the advice and direction of some experienced gentlemen of the Eastern States whether there is not a better mode of boiling the sap of the sugar maple than in iron kettles over a fire? I am led to these inquiries by the circumstance of a young man, lately from an eastern State, having erected in this neighborhood a wooden distillery that is boiled by steam conveyed into the bottom of the cistern by wooden pipes from a small iron kettle, set in an arch some thirty feet distant.

Having had upwards of thirty years experience and observations in manufacturing maple sugar in the same orchard, I had thoughts of publishing some directions for public benefit, and wish to know if there hath been any late improvements in boiling down the sap by steam.

SAMUEL PRESTON.

Stockport, Pa. Dec. 23, 1822.

THE FARMER.

BOSTON:—SATURDAY, JAN. 4, 1823.

After tendering the compliments of the season to our patrons, subscribers and well-wishers, we shall presume on the privilege, which custom sanctions, on similar occasions, to make a few observations on such events of the past year as will probably stand the most prominent in the annals of the times. Our retrospect, however, will consist merely of a few transient glances, not of a regular survey. We do not profess to be so voluminous a chronicler of weekly novelties as most of our brethren, whose papers are not, like ours, devoted to some specific purpose. A less minute recapitulation of recent incidents will be expected from us, than from those wholesale dealers in diurnal occurrences, who print daily papers; or even from the conductors of those weekly vehicles of all sorts of intelligence, whose columns are almost exclusively occupied by such marvellous matters of fact as are technically called *news*.

The year past has not been signalized with any transactions or productions which can make much display in the records of ages. Some nations are struggling for liberty, some looking on with apathy, and others apparently with interest; and if their good wishes were as prevalent as those of Fortunatus, would be sure to break the yoke of the oppressor, and set the captive free. The Greeks are maintaining an unequal and sanguinary warfare with a ferocious foe. The U. States assist them with newspaper expressions of sympathy, sentimental toasts, and town-meeting resolutions. These, should they ever reach the ears of the belligerents, may encourage the hearts, if not strengthen the hands of the descendants of Leonidas. Great Britain, who might be the emancipator of Greece, has hitherto evinced a degree of coolness towards her cause which seems hardly compatible with that regard for the welfare of Christendom which is due from a nation whose kings have ever borne the title of "Defender of the Faith." The Emperor of Russia, although at the head of the Greek Church, appears to care but little about the Greek nation. It is possible, however, that those powers are actuated altogether by that pacific policy, which has of late, (at least ostensibly) been the

order of the day in Europe; and it may be that Congress at Verona will yet take measures to aid cause of men, whose unassisted efforts and suffer reflect disgrace on civilized mankind.

The Spaniards do not appear to know very well how to manage the little liberty which they have acquired. The king and constitution (to use a farmer's phrase) work as awkwardly together as a couple of off-oxen. The king is at the head of the constitutional, alias publican party, and the rebels are royalists, who rally against the king round his own standard, and under his own banner! They oppose the king in the name of the people, and in behalf of his majesty, and would, probably shoot or behead him for his own benefit, if that was the law of the land. Whether the elemental political contention will subside without settling the calm of despotism, is a problem which time can resolve.

France seems settled on her lees. Political infatuation has occasionally been manifested by frolics in her legislative bodies. But nothing more formidable than bubbles and fumes has originated from the boiling of the political caldron; although it often seemed on the point of exploding like the boiler of a high temperature steam engine. We are apprehensive that the French nation would not make the best possible use of freedom if they had it in possession, and their apprenticeship to liberty under Bonaparte does not appear to have taught them how to be their own masters.

England of late has presented nothing novel or extraordinary, except the travels of Majesty; the loyalty of his Scotch subjects; the decease of Lord Castlereagh; the liberation of Hunt, the main spring of radical movements; and the accession of Mr. Canning to the office of Prime Minister. This last event it is thought is inauspicious to the cause of freedom in Spain; and it is hoped that the Greeks have at least nothing to learn from his counsels. The season in England has been uncommonly productive, and Wheat so low that considerable quantities have been shipped to advantage New York.

South America still remains a theatre of contentions. Freedom is a plant which does not appear to find congenial soil in that part of the torrid zone. There can be no doubt but Spain has lost the sceptre of dominion in S. America. But whether the South Americans will succeed in establishing free and stable governments on correct republican principles is somewhat problematical.

With regard to our own "happy land," we have every blessing bestowed which can lead us to be grateful to the Source of all benefits. Notwithstanding some unfavorable appearances, in consequence of early drought, the fruits of the earth were, perhaps, never more abundant. The rancor of political animosities seems to be nearly annihilated. The mists of party can now neither magnify nor conceal the merits or demerits of candidates for office, and he who deserves best of his country, in general way, has the fairest prospect of succeeding to its honors and emoluments.

After these brief sketches of "things in general" this passing peep at the great Babel, called The World, we hope to be indulged in a word or two relating to our own concerns. It is now about five months since we commenced the publication of the New England Farmer. Our subscribers are not so many as we wished, nor so few as we have feared. We have had less assistance from correspondents than our hopes had led us to anticipate; but we have received some valuable communications, and take it for granted that there are others in the germe, which will, in due season, be developed.

should not only be gratified, but the public good be promoted as well as individuals benefited, a larger proportion of our cultivators would subscribe for the *New England Farmer*. This we can evident by a very little reasoning on the subject. As well observed by Lord Bacon that "knowledge is cash to a farmer—money in hand, and not at interest. It teaches how to work to the best advantage; and he who "works it right," is on the way to fortune. The *New England Farmer* is a repository of that kind of knowledge which is wealth to the husbandman. We say nothing of our own writings, and at present will not boast of any communications which we have received or may receive from our literary and intelligent correspondents. But the extracts and abridgments from the works of Sir John Smeaton, Sir Humphrey Davy, the various Dictionaries, works upon Farmery, Transactions of the different Agricultural Societies, both foreign and domestic, quotations from the *American Farmer* and the *Boys*, and various other agricultural books and papers, cannot fail to prove profitable to every farmer who can think as well as read, and has judgment enough to make a proper use of the knowledge which is afforded before him.

UNPLANTED SCIENCE AND ENGRAFTED LITERATURE.

Obtain of our brethren of the type and quill, who give those learned hebdomadal publications cyclopedias, Intelligencers, Herald, Messengers, Patriarchettes, Journals, &c. &c. have, of late, been assiduous in decorating their literary parterres, with potatoe patches, and scientific pumpkin-yards of articles taken from the nursery and seed plot of the *New England Farmer*. Although we are not only fully willing, but truly solicitous that the public should reap an abundant harvest from our humble lay, yet it would be no more than common civility (to say nothing about common honesty) would seem to require, for our co-adjutors to just intimate the source whence they generally derive their agricultural treasures. But, instead of this, many of the gentlemen whom we allude, have, since we began our establishment, opened petty offices in one corner of their papers, for the disposal of agricultural and economical intelligence, and taken almost their whole time in trade (save their brass) from our premises, not without licence, but without acknowledgment!—of these Georgical geniuses, by thus engrafting their scions on their own stumps, contrive to pass for scientific agriculturists, when in fact they hardly know a snip from a pumpkin, or a hoe from a hay-cart. They are, however, perfectly welcome to any or all our articles, provided they will be so good as to prefix or shew the words *New England Farmer* to such of our papers and chattels as they may from time to time command to exhibit in their columns. Indeed, the more publicity they give to our productions, with the above-mentioned condition, the better we shall be served, and, perhaps, the more their readers will be benefited.

We do not intend to say any thing against gentlemen who are taking the liberty to select our selections, without intimating the source from whence they derived them. True it is that we have toiled through the mass of matter of foreign journals, cyclopedias, and other repositories of science, and employed ourselves in collating, condensing and compacting such passages as we thought might be proper for our publication, and making them official to the public, till our very spectacles waxed dim with fatigue, and our brains seemed in danger of

becoming dry as an anatomical preparation. True it is that after we have impressed on our columns these fruits of our researches, with a faint hope that somebody might appreciate our exertions, the same matter has been shortly after presented to us in some country paper, with every common indication of its being the result of the sapience of the Solomon who conducts it! These things, however, as we said before, we shall say nothing about. But when we have written an article which is as original as any thing can be, if composed of the letters of the alphabet, (which we do not pretend to have invented) with a great deal of that kind of toil which exhausts the mind without invigorating the body, and attenuates the thread of life till little or nothing is left for the destinies to snap with their scissors—when we have done this, to have the fruits of our labor come staring at us in a village paper as the production of some journalist, who

"Pretends to be a sage philosopher,

But ne'er read Alexander Ross over ;"

and who, by the courtesy of the public, and the indulgence of a free government, is suffered to soil white paper and blacken every thing about him with printer's ink;—this might "in Job or Griswold stir mood," and provoke to active indignation any one not as tame as an over-worked ox that lies down in the furrow.

FARMER SUMMARY OF NEWS.

CONGRESSIONAL.

Nothing of great general consequence appears to be on the carpet in our National Legislature. A motion for fortifying Thompson's Island, off Florida, has been adopted. Mr. Wright has offered a resolution for an inquiry into the expediency of arming all the militia with rifles, excepting those residing in cities, towns and villages. A bill has been before the House, and is committed, for incorporating an U. S. Naval Fraternal Association. A memorial of William Thornton and 137 other citizens of the District of Columbia, has been presented by Mr. Dwight, praying Congress to appropriate two or three millions, in provisions, or whatever may be necessary to the Greeks; which has been ordered to lie on the table. Bills have passed the House to regulate the collecting of duties on goods imported from Canada, and for making perpetual the laws for the punishment of piracy.

THE MASSACHUSETTS LEGISLATURE

assembled on the 1st inst. and immediately proceeded to business. The Governor's Message was received at 12 o'clock, and is an official document of too much merit for us to attempt to abridge or analyze it. The last paragraph announces the determination of His Excellency to decline being considered a candidate for re-election to the office of chief magistrate.

A late arrival at New York has brought London dates to the 6th of November. They contain a report that a battle has been fought on the frontiers of Spain in which the royalists had proved victorious, and the Constitutional Brigadier-General Torrigio, was mortally wounded. Letters from Paris, however, pronounce the foregoing to be mere rumours.

The Congress of Verona was sitting, without having hatched any thing of consequence.

Paris papers assert that Greek deputies were on the way to Verona, and that Alexander, and all his ministers were decidedly in favor of a war with Turkey; but are opposed by other powers.

The late account of Morales having gained a victory over the Colombian army is incorrect. On the contrary, Capt. Mason, lately arrived at Baltimore, gives information of two battles having been fought on the 22d and 24th of November, in which the Colombian forces proved victorious. The royal troops, in consequence, were obliged to evacuate Maracaibo on the 26th, and that place was taken possession of the same day by Gen. Montilla.

A system of outrage appears to be the order of the day in Ireland. An Irish paper states, that "the infuriated and desperate peasantry are again collecting

arms; and again have the gentry who were not able to remove to towns or to the capital, called upon the Government for assistance. But what can the government do more than it has done?"

We learn from the *National Intelligencer*, that Commodore Porter arrived at Baltimore on the evening of the 24th inst. and almost before he was known to have been in the city, bought, and sent off to Norfolk, under the command of Lieut. Newell, a whole squadron of eight vessels, intended for service against the pirates. The Commodore has proceeded to the North, to procure a steam-boat to form part of the expedition.

The *National Intelligencer* informs that Mr. Rich, Consul of the United States at Valencia, has obtained possession of the original manuscript of Columbus' account of his first voyage to America. Mr. Rich resides not far from the port from which the illustrious navigator took his departure, on his first voyage of discovery. The manuscript, it is said, will be translated and published in the Spanish and English languages, and the original deposited in the capitol of the United States, at Washington.

Precepts have been issued, appointing the first Monday of March, for the second trial to elect Representatives to Congress, in the two Worcester Districts, and Essex South District.

A philanthropic quaker, whose name is Allen, is at Verona, urging the cause of the enslaved Africans. He regularly appears before the sovereigns with his hat on, and they regularly admit him in the character of a privileged friend.

The Grand Jury of the City of New York have presented to the attention of the Court of General Sessions of the Peace, the Yellow Fever, and recommended that measures should be taken for the prevention of it.

It has been estimated in South Carolina, to take on an average 35 dollars per annum, to support a plantation slave; and that the average value of a slave is \$500.

In the village of Rochester, on Genesee River, N. Y. the first house was built in 1812. The village now contains 3000 inhabitants, has forty merchants' stores, six houses of public worship, a stone court-house, two factories, two printing offices, a paper mill, three iron foundries, six flour mills, six saw mills, an oil mill, two gun factories, a nail factory, two distilleries, and three tanneries.

A Huntsville, (Alabama) paper states that the quantity of Cotton grown, cleaned, and packed for market, in the county of Madison, in the state of Alabama, was, in the year 1821, upwards of six millions of pounds, amounting at the then market price of 12 1-2 cents per pound, to \$753,333. This year's crop, if equally abundant, will bring, at the present price of 8 cents per pound \$482,133. The population of that county, by the last census, taken late in 1821, was 17,481. The product for exportation, in 1821, was therefore within a fraction of forty-five dollars per soul, or, on a fair estimate, one hundred dollars for each working hand. The same rate would give to the Union a produce, beyond the consumption, of more than four hundred millions of dollars.

There are in a pond near Faversham, three trout, so domesticated, as to come at the call of the person who feeds them, and actually leap from their native element to eat out of the hand of their feeder.

At the Iron works of Truman Hart, Esq. in Pulteneyville, Ontario county, N. Y. there were manufactured in five days, at two fires, forty-seven hundred weight of wrought iron of various kinds.

Major William Howard, raised this season, on his farm in Kings' County, (L. I.) a turnip, weighing 7 lbs. 12 ounces, and measuring near thirty inches in circumference.

Three beautiful varieties of Tourmaline were deposited in the Cabinet of the Mineralogical Society in this town, last week, by Mr. Elijah L. Hamlin, of Paris, one of green, one of red, one of white, all taken from their native localities in that town. Also, a fine specimen of Emerald, of the subspecies Beryl, found in the same town.—*Portland Argus*.

James Pleasants, a member of the United States' Senate, is elected Governor of Virginia. The late president Madison was put in nomination, but declined being voted for.

ON GOVERNING THE PASSIONS.

BY T. G. FESSENDEN.

"He that is slow to anger is better than the mighty;
and he that ruleth his spirit, than he that taketh a
city." SOLOMON.

The man who rules with absolute control
The angry passions, which deform the soul,
A more important victory can boast
Than he whose might has overcome a host.

The soul is sick'n'd and the heart is pain'd
To trace the course of anger unrestrain'd,
Blasting the pleasures of domestic life
With bitter brawls, and scenes of savage strife.

The wretched wight, who yields to anger's power,
Has no security a single hour;
His life may soon be forfeited for guilt
Of guileless blood, in furious transport spilt.

Behold how bright the warrior's wreath appears,
Planted in carnage, fertiliz'd with tears!
And trace his trophies of heroic ire
Through seas of blood, and pyramids of fire!

Behold the conqueror, who won the world,
By ruthless rage from glory's zenith hurl'd
Tost like a feather on the mountain wave,
Lord of the globe, but passion's paltry slave!*

Then he who rules with absolute control
The angry passions, which deform the soul,
A more important victory can boast
Than if his might had overcome a host.

*Alexander the Great, in a fit of anger, slew his foster brother Clytus, for which flagitious act he was struck with such remorse, that he attempted to starve himself.

From the Boston Patriot.

HORSE SHOEING.

I have heretofore suffered much trouble and some danger, when riding on horse back in the winter time, from the horse having his feet loaded with balls of ice and snow; and I consider that horses driven in the stages often undergo a double share of fatigue and labor from this circumstance. I have for several years been endeavoring to devise some method to prevent or remedy this inconvenience; but without effect, until the year past; I directed my blacksmith to try the experiment of a shoe upon a different construction, and which I found to succeed so completely, that I wish to communicate it through your paper for the benefit of the public.

The smith in forming the plate for his shoe, should draw it wider in the middle and narrower at the end than for a common shoe: After the shoe is turned, let the inside of it be peened out, so as to leave it in the form of a heater, viz. narrow at the toe, and wide at the heel: In which case the snow, instead of being confined by a circular shoe and forming a ball in the hollow of the foot, is continually working out and discharging itself at the heel; and the horse instead of treading upon a round ball of snow and ice, will find and feel the benefit of his corks!

Printers who consider this improvement as worthy the attention of the public, will have the goodness to communicate it through their respective papers.

Hampden, Me. Nov. 29th, 1822.

From a late London paper.

CURED FISH.

Dr. Mac Culloch, of Edinburgh, has ascertained, that the antiseptic quality of Sugar is sufficient to preserve fish in the most excellent condition. He states that this substance is so active, that fish may be preserved in a dry state, and perfectly fresh, by means of sugar alone, and even with a very small quantity of it. He has thus kept salmon, whiting, and cod, for an indefinite length of time; and by this simple means fresh fish may be kept in that state some days, so as to be as good when boiled as when just caught.

It is added, that "if dried, and kept free from mouldiness, there seems to be no limit to their preservation; and they are much better in this way than salted. The sugar gives no disagreeable taste. This process is particularly valuable in making what is called *kippered salmon*; and the fish thus preserved are far superior in quality or flavor to those which are salted or smoked. If desired, as much salt may be used as to give the taste that may be required; but this substance does not conduce to their preservation. In the preparation it is barely necessary to open the fish, and to apply the sugar to the muscular part, placing it in an horizontal position for two or three days, that this substance may penetrate. After this it may be dried; and it is only necessary to wipe and ventilate it occasionally to prevent mouldiness. A table spoonful of brown sugar is sufficient, in this manner, for a salmon of five or six pounds weight; and if salt be desired, a tea spoonful or more may be added. Saltpetre may be used instead, in the same proportion, if it be desired to make the kipper hard."

From the National Gazette.

In "the General Views" contained in the Appendix to Mr. S. E. Morse's "New System of Geography," the following, among other interesting results, are stated in connection with the Tables of the Population of the United States.

In 1790, the States West of the Alleghany mountains contained scarcely one hundred thousand inhabitants—in 1820, those states, including Alabama and Mississippi, contained more than two millions of inhabitants.

The population of the United States has increased 32.9 per cent. between 1810 and 1820. At this rate it will double in about twenty-five years.

Taking the whole of the United States together, the Whites increase faster than the Blacks. During the last thirty years, the proportion has been as 147 to 133. But during the same period, in Maryland, Virginia, North Carolina, South Carolina, Georgia, Tennessee, and Kentucky, the Blacks have increased much faster than the Whites; in South Carolina, during the last ten years, more than three times as fast.

In the new States, the number of females is much less, in proportion, than in the old states. The difference is accounted for by the fact that the emigrants to newly settled lands, are generally young men, many of whom are without families. Hence the chances for marriage for females, are greater in the new than in the old states. In the latter, the number of females not married, is much larger in proportion than in the former.

Of the white population of the United States it appears that 12.17 per cent. are upwards of 45 years old, while, of the Black, the proportion is only 10.40 per cent. In the States south of Pennsylvania and the river Ohio, including Missouri and Louisiana, only 11.23 per cent. of the White population are more than 45 years old.

It appears that 2,065,499 persons in the United States, or more than one-fifth of the whole population, are engaged in agriculture; children and females generally not being included in the calculation. Only 421,644 persons, or 3.30 per cent. of the whole population, are engaged in commerce and manufactures, including not merely manufacturers in the common sense of the term, but mechanics and artificers of every kind.

In all our great cities, the females are more numerous than the males. The average of the cities gives nearly 109 females to 100 males, while that of the whole United States gives 97 females for 100 males.

In the six principal cities of the United States the proportion of females between 16 and 45 years of age, being on an average about 24 per cent. of the population, while in the country large, it is only 19.30 per cent. At the same time, the proportion of children under 10 years of age, is very small, being on an average less than 28 per cent., while the average of the whole United States gives 33.29 per cent. From this it appears that the causes which operate to retard the increase of population, exist to much greater extent in our cities than elsewhere. It is a singular fact, that in every one of the abovementioned cities, the females under 10 years of age are more numerous than the males, while in every State of the Union, the fact is reverse; and in the new States especially, the excess of males among the children is very great.

It appears that in the newly settled States Alabama, Mississippi, Indiana, Illinois and Missouri, taken collectively, there are, among children under ten years of age, 76,087 boys; 70,038 girls; that is, for every 100 boys there are only 92 girls; while in the old States New Hampshire, Massachusetts, Rhode Island, Connecticut, and the District of Columbia, there are 158,113 boys and 153,384 girls; that is, every 100 boys there are 97 girls; it appears also, that in our six larger cities, taken collectively, there are, under 10 years of age, 38,300 boys, and 33,223 girls; that is, for every 100 boys there are nearly 100 girls. This seems to indicate, that the state of society which is more favorable to the increase of population, is particularly favorable to the increase of males; perhaps, to be more particular, that the proportion of males among the offspring of early marriages is unusually great.

A gentleman riding through the town of— one day met an awkward fellow, leading a horse whom he accosted in the following manner: "How odd it looks to see one hog lead another!" "Yes, replied the chap, "but not so odd as does to see a hog ride on horseback."

Mrs. Garrick's letter of remonstrance against Kean's *Abel Druggier*, was brief. "Dear Sir, you don't know how to play *Abel Druggier*." His reply deserves also to be recorded, and placed to the credit of his gallantry. "Dear Madam, I know it."

NEW ENGLAND FARMER.

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VOL. I.

BOSTON, SATURDAY, JANUARY 11, 1823.

No. 24.

DISEASES OF CATTLE.

SELECTED AND COMPILED FROM THE BEST AUTHORS,
BY THE EDITOR.

Inflammation of the Stomach.

"The complicated structure of this organ, in ruminating animals, renders it peculiarly liable to disease; inflammation, however, does not appear to occur frequently as a primary disorder, but is more commonly a consequence of some offensive matter lodged in one of the four stomachs, or from the animal's feeding so greedily, as to weaken the organ, and prevent it from performing its functions. In either of these cases, the principal object is to get rid of the offensive matter, by invigorating the weakened stomach, and enabling it to expel the matter, by which it is oppressed. Should inflammation attack the stomach, independently of this cause, that is without any hurtful matter having been swallowed, or any improper accumulation of food, the principal remedies would be plentiful bleeding and abstinence from food."—*White's Treatise on Veterinary Medicine.*

Dr. Peck says that the symptoms of this disorder are violent pain in the stomach; large blisters rise sometimes on the inside of the mouth; the animal is very restless, and appears to have the pain increased by every thing that is swallowed, which frequently brings a cough; the body feels clammy with sweat; difficulty of breathing. He attributes the cause to overloading the stomach; cold water; acid matter, or poisonous substances; not sufficient water in dry summers. The treatment recommended by this author is to bleed freely every day, if necessary; keep the body open with castor oil, &c. afterwards give febrifuges [such as glauher's salt, nitre, salt of tartar, spirit of nitrous ether] as in other cases of inflammation. When the animal is recovering, give it food sparingly, a little warm, such as scalded malt with warm water, &c.

Inflammation of the Bowels.

The principal symptom of this disease is a griping pain, which causes the animal to lie down frequently, and rise with difficulty. He frequently turns his head towards his belly, and endeavors to strike it with his hind foot; the body is full; the eyes dull; the pulse strong and quick. The quickness of the pulse forms a distinction between this complaint and the gripes, in which latter disorder, the pulse is sometimes hard, but seldom quickened. When the pain is violent, a copious perspiration takes place.—When proper remedies are not employed, the disease terminates in mortification and death. In the treatment of this complaint, the circumstances of the case must be carefully attended to. If the pulse is much quicker than natural, the under surface of the eye-lid unusually red, and the breathing disturbed, let a large quantity of blood immediately be taken away, even five or six quarts; and then, unless the bowels are unusually open, give the following drink:

Sulphate of magnesia [epsom salt,] 8 oz.
Castor oil, 1 pint.
Gruel, 1 pint.

Dissolve the salts in the gruel, and add to them the oil, for one dose.

The operation of this drink should be assisted by clysters. When all the above symptoms, however, are not observable; if the under surface of the eye-lid is not redder than usual, or if it is rather pale; if the pulse is nearly in its natural state; and particularly if the animal is rather loose, or scours, the bleeding should be moderate; and if the animal be rather weak and in low condition, it had better be omitted. The following anodyne drink is to be given:

Tincture of opium, $\frac{1}{2}$ oz.
Spirit of nitrous ether, $\frac{2}{2}$ oz.
Water, 1 pt.

Mix for one dose.

When the animal has been kept sometime on dry food, and is apparently costive, relief can only be obtained by some laxative drink, like that first above mentioned, and clysters. Bleeding, however, must not be omitted, particularly if the pulse is quickened, the under surface of the eye-lid redder than natural, and the breathing disturbed. If the laxative prove ineffectual, in removing costiveness, it should be repeated.

Inflammation of the Liver.

"The structure of this organ in horned cattle and sheep, is different from that of the horse; the latter has no gall-bladder, but in the former, there is one of considerable size. It is on this account, perhaps, that cattle are more subject to diseases of the liver than the horse. I do not believe that inflammation of the liver often occurs in so acute a form, as to require bleeding largely; it is more commonly of a chronic or slow kind, causing a defective action in the organ, in consequence of which an unhealthy kind of bile is formed, which plugs up the ducts of the liver, and causes a derangement in the organs connected with it."—*White's Treatise.*

The symptoms of this disorder, according to Doct. Peck, are, difficult breathing; swelling about the short ribs; pulse hard, full and frequent; thirst; yellowness of the eyes; costiveness, &c. Fat beasts are most subject to this complaint in hot weather, by being over heated in driving, or running about the pasture; by being exposed to severe cold, when hot. The treatment recommended by Dr. Peck, is to bleed according to the symptoms; give cathartics, [purgers,] clysters, febrifuges, &c.; Diet, mashes made of scalded bran and malt; blister the sides of the belly, and rowel underneath.

Inflammation of the Kidneys.

The following are the symptoms of this disorder:—quick pulse; loss of appetite; the animal is frequently endeavoring to stale, and voids only a small quantity with much difficulty and pain; pressure on the loins gives pain, and causes the animal to shrink or give way to it; there is generally, considerable stiffness in the hind parts, observable when the animal attempts to walk: the urine is commonly of a dark red color. This disease is, however, very different from that named red-water, [to be treated of hereafter] and unless properly treated at its commencement, often terminates fatally. Dr. Peck says, the symptoms that are of a favorable

nature, are, urine high, or of a coffee color, discharged in large quantities; afterwards copious, thick, and mixed with mucus. The unfavorable are, sudden cessation of pain; urine dribbling away in small quantities, of a black and fetid color and smell. The disorder is caused by violent blows across the loins; small stones or gravel being lodged within the kidneys; violent motion or hard driving in hot and sultry weather.

Let the animal be bled freely and take a pint of castor oil. If the dung is at all hard, or deficient in quantity, let clysters or warm water, with a little sweet oil, be employed. The liniment or embrocation, directed for inflammation of the lungs [see page 177, 3d column] should be rubbed on the loins; after which, let them be well clothed, or covered with a fresh sheep or lamb's skin. When the pain and difficulty, or rather the almost constant straining to stale continues, after the castor oil has operated, and the bowels have been sufficiently opened, an anodyne clyster may be administered, consisting of about one ounce and an half of tincture of opium, in one quart of gruel; or, from one dram to two of crude opium, dissolved in warm water, and mixed with gruel.

If the animal is very thirsty, he should be restrained from drinking; and what he takes should be impregnated with some mucilaginous substance; an infusion of linseed, or decoction of marsh-mallows is very proper.

Inflammation of the Brain.

This disease is a kind of madness, attended with ravings and constant watchings; slow respiration; a strong pulsation in the temporal arteries, and sometimes irregular; running at the nose; the animal appears in a very fierce state, as if seized with a turbulent humor. The eyes appear much inflamed and ready to start from their orbits; the beast falls down of a sudden, and rises again with the same volatility, until nature is quite exhausted; a constant trembling and starting of the tendons; a dry and harsh skin; a suppression of the urine; grinding of the teeth, and a total want of rest; these last are unfavorable symptoms.

The cause of this disorder is found in too great an efflux of blood pressing on the temporal arteries; from which an increased action takes place; wounds or contusions on the head; suppressions of the natural evacuations.

The cure should be sought by bleeding freely, according to the violence of the symptoms and the strength of the animal, in the jugular-vein; keep the bowels open with castor oil, and other purging medicines. Blister the side of the neck with flies and spirits of turpentine.

From what has been said of the treatment of diseases, caused by inflammation of the internal organs of the body, it will be seen that they are all of a dangerous nature, and require the earliest attention; that they are generally the consequence of improper management or neglect, and may, therefore, most commonly be prevented; and that the most essential remedy is early and copious bleeding, with laxative medicine.

(TO BE CONTINUED.)

INTERNAL IMPROVEMENT.

CANAL FROM WORCESTER TO PROVIDENCE.

We have been kindly presented with a pamphlet entitled "An account of the proposed Canal from Worcester to Providence; containing the Report of the Engineer; together with some Remarks upon Inland Navigation. Published by order of the Committee for the County of Worcester;" and shall take some note of its contents, confining ourselves, however, principally to the facts which it contains. The project of opening inland navigation from the waters of Narraganset Bay, in Rhode Island, to Worcester, in Massachusetts, thro' the valley or basin of Blackstone river, was first attempted about the year 1796, by the late John Brown, who, with the aid of an Engineer, surveyed the route, and found the plan not only practicable, but easy of execution. Many intelligent gentlemen were disposed to aid in the work, but to effect it, an act of incorporation from each of the States of Rhode Island and Massachusetts, was necessary. The Rhode Island legislature passed an act, which vested a company with powers and privileges to prosecute the design, but the legislature of Massachusetts withheld its assent to a corresponding Act of Incorporation.

This vote of the Massachusetts legislature prevented for a time any farther attempts to carry the project into execution. Committees, however, have been recently appointed to investigate the subject, who engaged Benjamin Wright, Esq. Chief Engineer upon the middle section of the great Erie Canal, to make a topographical survey of the route. Mr. Wright, with the aid of two assistant engineers, completed a survey in September last, and made a Report from whence the following facts are obtained.

The distance over the route for the proposed Canal is 45 miles as a canal would run; and the descent is 151 1-2 feet, from Thomas-street, in Worcester, to tide water at Providence. The ground is remarkably favorable. The soil generally easy to excavate—the embankments neither large nor extensive—very little solid rock to be removed—the aqueducts and culverts are not numerous or expensive. A canal 32 feet wide at top, 18 feet at bottom, and 3 1-2 feet depth of water would be the proper size to be formed. Locks of 70 feet between the gates, and 10 feet in width, would be sufficiently large for the trade intended—bearing in mind a proper economy in the use of water, and in the erection of the locks. North Pond, lying two miles Northerly from the Court-house in Worcester, and Dority Pond, in Millbury, are calculated to be sufficient to afford, by means of dams erected at their outlets, lockage water for 19,602 locks of 8 feet lift each. Long Pond, which falls into Blackstone River, covers at least 1,500 acres, and may be raised 6, 8, or 10 feet above its present level, with a small expense, and would, in the greatest drought, secure an abundant supply for the Canal without injuring, in the smallest degree, the important manufacturing interests along the Blackstone and its branches.

The whole expense, as reported by Mr. Wright, will amount to \$323,319. In this estimate is included \$15,395 for contingencies.

We shall conclude this notice by the following extracts, given verbatim from the pamphlet before us:

"The Report states that 'the ground is remarkably favorable—the soil generally easy to excavate—the embankments neither large nor extensive—very little solid rock to be removed, and the Aqueducts and Culverts not numerous or expensive;' and it may be added that the route is remarkably direct. This fully accounts for the estimates of the Engineer, falling short of public expectation.

"The plan, then, is feasible, the supply of water abundant, and the expense much less than was contemplated; the only question, therefore, which remains to be settled is, whether it is expedient? On this point, those who have most carefully and deliberately examined the subject, would almost consider it heresy to doubt, so manifest are the advantages, and so obvious the importance to a large and fertile section of the country, whose prosperity probably experiences a severer check from the high charges for transportation on tonnage than from any other single cause. It is probable the question of expediency would not have slept, under the decision of the Legislature in 1796, until this time, without a renewed application for an Act of Incorporation, had there not been, during a large portion of that period, a peculiar concurrence of circumstances, which probably will not again recur."

"It is calculated that the expense of transporting on a Canal, exclusive of tolls, amounts to ONE CENT a ton, per mile, or one dollar a ton, for one hundred miles, while the usual cost of conveyance by land, is one dollar and twenty five cents per hundred weight, or twenty-five dollars a ton, for the same distance. "The celerity and certainty of this mode of transportation are evident. A loaded boat can be towed, by one or two horses, at the rate of twenty-five or thirty miles a day. Hence, the seller or buyer, can calculate, with sufficient precision, on his sale, or purchases—the period of their arrival—the amount of their avails, and the extent of their value. A vessel on a Canal is independent of winds, tides and currents, and is not exposed to the delays attending conveyances by land; and with regard to safety, there can be no competition. The injuries to which commodities are exposed, when transported by land, and the damages to which they are liable, when conveyed by natural waters, are rarely experienced on Canals. In the latter way, comparatively speaking, no waste is incurred, no risk is encountered and no insurance is required. Hence it follows, that Canals operate upon the general interests of society, in the same way that machines for saving labor do, in manufactures. They enable the Farmer, the Mechanic, and the Merchant, to convey their commodities to market, and to receive a return, at least twenty-four times cheaper, than by roads," [exclusive of tolls, which are usually very moderate.] "As to all the purposes of beneficial communication, they diminish the distance between places, and therefore encourage the cultivation of the most extensive and remote parts of the country. They create new sources of internal trade, and augment the old channel; for the more cheap the transportation, the more expanded will be its operation; and the greater the mass of the products of the country for sale, the greater will be the commercial exchange of returning merchandise, and the greater the encouragement to Manufacturers by the increased economy and comfort of living, together with the cheapness and abundance of provisions and raw materials. Consequently, Canals are advantageous to towns and villages, and to the whole country, by increasing population, augmenting individual and aggregate wealth, and extending foreign commerce."

Many who find the day too long, think life too short. But short as life is, some find it long enough to outlive their characters, their constitutions, and their estates.

AGRICULTURE.

From the Middlesex Gazette.

At a meeting of the Trustees of the Society of Middlesex Husbandmen and Manufacturers, holden at Concord, Jan. 1st, A. D. 1823, the following premiums were awarded:

To Col. Joseph Valentine, of Hopkinton, the sum of fifteen dollars, for the greatest quantity of Indian corn, raised on one acre of land, being 119 bushels, 3 pecks and 2 quarts. [For the soil and process of cultivation, see our last, page 178.]

To Ebenezer Little, of Shirley, the sum of ten dollars, for the next greatest quantity of Indian corn raised on one acre, being 66 bushels.

To James Kimball, of Littleton, the sum of seven dollars, for the greatest quantity of Barley raised on one acre of land, being 40 1-2 bushels of heavy two-rowed barley, weighing 50 lbs. the bushel.

Several other claims for premiums on Agricultural experiments were laid before the Trustees, and were deferred for further consideration, to the adjourned meeting of the Trustees, which will be holden at Darrah's Hotel, in Concord, on the 11th day of March next.

Agreeable to a vote of the Society in 1821, the Treasurer has distributed among some of the most intelligent and attentive farmers in the County, a quantity of Chili wheat and Riga flax-seed, for the purpose of having their value tested by various experiments. Seven of the persons, who received some of the wheat and flax-seed, have made reports to the Trustees, and although the experiments have been made in different parts of the county, and on a variety of soils, the result of each has been nearly the same. The wheat has in every instance failed. It grew with great luxuriance and apparent health and vigor, and seemed to promise an abundant product; but in each case there has been a general blast of the grain—no kernels have been produced which will equal either in size or fairness, those which were sown.

The success of the flax has been different. In every instance it has far surpassed any which has been ordinarily cultivated in this county. That which was sown on a rich soil grew to the height of six feet, and arrived at maturity in due season. No facts have yet been communicated from which the quality of the flax when fully prepared for the spindle, can be determined with certainty, but it is believed that it will be much superior to the flax usually raised in this vicinity.

By order of the Trustees,

N. BROOKS, Rec. Sec.

Description of a method of cultivating Peach Trees, with a view to prevent their premature decay; confirmed by the experience of forty-five years, in Delaware state, and the Western parts of Pennsylvania. By Thomas Coulter, Esq. of Bedford County, Pennsylvania.

From the Transactions of the American Philosophical Society.

The death of young peach trees is principally owing to planting, transplanting, and pruning the same stock, which occasions it to be open and tender, with a rough bark, in consequence of which insects lodge and breed in it, and birds search after them, whereby wounds are made, the gum exudes, and in a few years the tree is useless. To prevent this, transplant your trees

as young as possible, if in the kernel it will be best, as there will then be no check of growth. Plant them sixteen feet apart. Plow and harrow between them, for two years, without regard to wounding them, but avoid tearing them up by the roots. In the month of March or April, in the third year after transplanting, cut them all off by the ground, plow and harrow among them as before, but with great care, to avoid wounding or tearing them. Suffer all the sprouts or scions to grow, even if they should amount to half a dozen or more, they become bearing trees almost instantaneously, on account of the strength of the root. Allow no animals but hogs to enter your orchard, for fear of their wounding the shoots, as a substance drains away through the least wound, which is essential to the health of the tree, and the good quality of the fruit.

If the old stock is cut away the third year after transplanting, no more shoots will come to maturity than the old stump can support and nourish, the remainder will die before they bear fruit, and may be cut away, taking care not to wound any other stock. The sprouts when loaded with fruit will bend, and rest on the ground in every direction for many years, all of them being rooted as if they had been planted, their stocks remaining tough, and their bark smooth, for twenty years and upwards. If any of the sprouts from the old stump should happen to split off and die, cut them away, they will be supplied from the ground by others, so that you may have trees from the same for 100 years, as I believe. I have now trees from one to thirty six years old, all from the same stump. Young trees, formed in this manner, will bear fruit the second year; but this fruit will not ripen so early as the fruit on the older trees from the same stump. Three years after the trees are cut off, the shoots will be sufficiently large and bushy to shade the ground so as to prevent the growth of grass, that might injure the trees: therefore ploughing will be useless, and may be injurious by wounding them. It is also unnecessary to manure peach trees, as the fruit of manured trees is always smaller and inferior to that of trees which are not manured. By manuring you make the peach trees larger, and apparently more flourishing, but their fruit will be of a bad kind, looking as green as the leaves, even when ripe, and later than that of trees which have not been manured. Peach trees never require a rich soil: the poorer the soil the better the fruit: a middling soil produces the most bountiful crop. The highest ground is the best for peach trees, and the north side of hills the most desirable, as it retards vegetation, and prevents the destructive effects of late frosts, which occur in the month of April, in Pennsylvania. Convinced, by long experience, of the truth of these observations, the author wishes they may be published for public benefit, and has been informed, that Col. Luther Martin and another gentleman, in the lower part of Maryland, have adopted a similar plan with great advantage.

REMARK BY THE EDITOR.

☞ The method here described of managing peach trees will probably supply some useful hints for the culture of apple and other fruit trees. Old orchards might be renewed by cutting away in the proper season the old stocks, and leaving the most vigorous sprout to renew

the stock, or making use of the stump to ingraft upon; if the fruit be not of the best quality.—New varieties of fruit, however, ought to be occasionally sought for from the seeds, as ingrafted fruits in process of time degenerate. A valuable paper on this latter subject may be found in the Transactions of the Society for the Encouragement of Arts, Manufactures and Commerce, written by Thomas Skyp Dyot Bucknall, Esquire, and republished in the Repertory of Arts, 2d Series, vol. 2. p. 361.

Account of a method of preventing the premature decay of Fruit Trees. By John Ellis, of New Jersey.

From the Transactions of the American Philosophical Society.

The decay of peach trees is owing to a worm, which originates from a large fly, that resembles the common wasp: this fly perforates the bark, and deposits an egg in the moist or sappy part of it. The most common place of perforation is at the surface of the earth, and, as soon as the worm is able to move, it descends into the earth, probably from an instinctive effort to avoid the winter's frost. This may be ascertained by observation, the track of the worm from the seat of the egg being visible at its beginning, and gradually increasing, in correspondence with the increasing size of the worm; its course is always downwards. The progress of the young worm is extremely slow; and if the egg is deposited at any considerable distance above the surface of the earth, it is long before the worm reaches the ground. The worms are unable to bear the cold of winter unless covered by the earth, and all that are above ground after frost are killed.

By this history of the origin, progress and nature of the insect, we can explain the effects of my method, which is as follows. In the spring, when the blossoms are out, clear away the dirt so as to expose the root of the tree, to the depth of three inches: surround the tree with straw, about three feet long, applied lengthwise, so that it may have a covering one inch thick, which extends to the bottom of the hole, the but-ends of the straw resting upon the ground at the bottom. Bind this straw round the tree with three bands, one near the top, one at the middle, and the third at the surface of the earth; then fill up the hole at the root with earth, and press it closely round the straw. When the white-frosts appear, the straw should be removed, and the tree should remain uncovered until the blossoms put out in the spring.

By this process the fly is prevented from depositing its egg within three feet of the root, and although it may place the egg above that distance, the worm travels so slow that it cannot reach the ground before frost, and therefore is killed before it is able to injure the tree.

The truth of the principle is proved by the following fact. I practised this method with a large number of peach trees, and they flourished remarkably, without any appearance of injury from the worm, for several years. I was then induced to discontinue the straw with about twenty of them. *All those which are without the straw have declined, while the others, which have had the straw, continue as vigorous as ever.*

FOR THE NEW ENGLAND FARMER.

It is not unfrequent to hear complaints of exorbitant taxation, and that the demands of pauperism form no inconsiderable item of the requisition, without the least advance to better the financial policy of towns in this particular. Many have been long accustomed to stipulate for the yearly maintenance of their paupers by auction, or other similar contract; a method, uniting great trouble with much expense. It is believed the adoption of other more judicious means would better subserve that beneficence embraced by the laws of humanity.

Therefore, to avail ourselves of the experience of past times, is a highly incumbent duty, so far as it will subserve the cause of humanity, and lighten the burthen of pauperism.

Should towns, having any considerable number of poor, provide lands proportioned to their wants and capacity, and place them under the superintendence of a practical farmer, aided by the united exertions of the most healthy of the paupers, it is believed that their labors, would in no small degree, contribute to the support of the whole.

The propriety of employing a practical farmer is self evident—for to the profession of agriculture, he unites economy and industry, the most important requisites in such an establishment—and is a judge of the kind and quality of the different soils that may fall to his care, and their adaptation to the several growths of profitable vegetables; also, his knowledge of the working part would enable him to make just exactions of others.

An attention to the breeding of swine, is an important acquisition, for while it regulates the pigery, it contributes largely to the accumulation of manure, without which, profitable returns cannot be expected from culture.

Manure being the mainspring in agriculture, an attention to it is of the highest importance, whether of inland location, or contiguous to the sea board—the latter, however, combines many advantages in that particular, not comprised in the former, as large collections might easily be made from sea and rock weed, dock mud, and many other floating substances possessing salt and other qualities important, whether for compost or other manure.

Establishments for the reception and maintenance of paupers on a somewhat similar plan, would no doubt greatly lighten taxation, and contribute to the comfort of the dependant, while under the guidance of sound policy, bottomed on benevolent principles, together with a well regulated police, essentially necessary to the health and comfort of old age, poverty and decrepitude would rarely be deprived of the necessities and comforts of life, while the wants of the indigent would be provided for, at little or no expense to the community.

A MIDDLESEX HUSBANDMAN.

From the Columbian Star.

There is a practical infidelity abroad, which derides the idea of Divine Providence. Whatever calamity may happen, "forth steps the spruce philosopher," and descants learnedly on the causes which have produced it; and he is satisfied with the most absurd conclusions, if he can succeed in excluding the all-sustaining and controlling Sovereign of the Universe from any agency in the event.

FOR THE NEW ENGLAND FARMER.

ON THE PRESERVATION OF THE TEETH.

Keeping the teeth clean is indispensable to their preservation. By suffering the particles of food and other impurities which are constantly collecting about them to remain, is to favor the production and operation of those causes which effect their ruin.

Whatever then is best suited to keep them clean, without the power of injuring them, is also best calculated to prevent their discoloration and decay. The same causes which produce caries of the teeth, tend likewise to injure the gums and breath, rendering the latter offensive, the gums spongy, and detaching them from the teeth. Most of the imported tooth powders, and those whose composition is kept secret, possess some acid property, or grinding power, which hurts the teeth by corroding or abrading the enamel, or protecting surface of them, leaving the comparatively soft and bony part within, to turn black and perish, without the possibility of the tooth's being restored to a sound state. These dentifrices often give the teeth an unnatural whiteness and brilliancy, very pleasing at first, and for a time, before their real character and effects are suspected. All that any preparation of this kind was ever intended to accomplish, by any one excepting an impostor, is to keep the teeth clean, of a natural whiteness, the gums sound, and the breath sweet.

All these effects the following powder is well suited to produce, without its possessing any quality which can, in any length of time or freedom of use, occasion the smallest injury of any sort. From its well known property of sweetening putrid and offensive substances, charcoal has latterly been, by some, much commended, and by many used as a dentifrice. After some time however, its particles were found to possess a grinding power, from their hardness, which soon wore off the enamel.

Engravers avail themselves of this property of finely pulverized charcoal, to grind down and polish their plates.

THE TOOTH-POWDER.

Take of Peruvian bark	2 parts.
Armenian bole	4 "
Prepared chalk	4 "
Myrrh	2 "
Loaf sugar	2 "
Carbonate of soda	$\frac{1}{2}$ a part.
Castile soap	2 parts.

These are to be pulverized, mixed, and passed through a sieve. Any apothecary can furnish this tooth-powder.

TOOTH BRUSHES.

The brush with which this powder is to be applied, should be sufficiently large and firm, and the hairs not too closely placed.

One reason for preferring hard brushes is, that they become softer by use, and another is that if not pretty stiff, they are not firm enough to clean the teeth thoroughly. They are never too hard unless they are so unyielding as to insinuate themselves between the teeth and gums, so as to separate them; this being guarded against, the firmer they are the better.

Having thus provided the powder and brush, the question is, how are they to be used?

The mouth should be rinsed with cold water, and the brush dipped into it before the powder

is used. A quantity of the powder should then be taken up on the end of the brush, and applied to every part of each tooth, not only to the anterior surface of the fore teeth, but the brush covered with the dentifrice, should be successively applied to the inner, as well as the outer, surface of the upper and lower teeth, and also to their ends. The last motions of the brush should be carried from the gums to the ends of the teeth, in the direction of their length. This serves to elongate the gum and to spread its points more elegantly over the enamel. The best time for using the tooth powder is after breakfast, and this should be done every day. In addition to this, we should be careful to cleanse the mouth with water and the brush, after every meal; and this should be particularly attended to before going to rest, otherwise the foulness which is too often permitted to accumulate through the day, cannot fail to commit its ravages on the teeth, gums and breath thro' the night. Benserade, a Frenchman, said of a young lady, who had a very strong breath, whom he heard sing, "What a beautiful voice, and charming words, but the air is worth nothing." Mais l'air n'en vaut rien.

Brushing the teeth once a day, if faithfully done, is preferable to many hasty and imperfect attempts to clean them.

Merely to pass the brush a few times lightly and rapidly over the teeth, is of little service; four or five minutes should be diligently spent in performing this operation.

The idea that the enamel of the teeth can be injured by brushing, is as unfounded and absurd as it would be to suppose that the palms of the hands might be worn out by moderate labor.

The same grateful and refreshing sensations which result from bathing the surface of the body, arise also from a proper attention to the mouth. No one who neglects his mouth can be said to be personally neat; nor can any one who omits this necessary attention to himself, justly expect the voluntary attention of others.

FOR THE NEW ENGLAND FARMER.

MR. EDITOR,

I send you the following extract from a Memoir read before the Royal Academy of Sciences, as tending to show the great exertion, as well as the royal patronage, which is exercised in France, for the improvement of their manufactures. Though the success which attended this effort was not so complete as could have been wished, yet it appears to have settled a question as to which no satisfactory information could be before obtained. It had long been a question with the curious what animal produced the material of the Cashmere (or by some called Camel's hair) shawl, of which we see generally only those of the cheaper kind. The time taken as well as the intricacy of the manufacture giving to them a most prodigious value. It will be seen that the individuals in this expedition passed thro' Russia and Tartary. In Tartary was found the goat which produced this remarkable fleece, in the possession of some wandering tribes, who gave them the name of the Thibet goat. Thus the labor was prevented of passing to Thibet, Persia or Cashmere in India. It seems four hundred of these animals were brought to France, being only about one third of the number purchased. How far they may retain the fineness of their down in France, and what their utility in manufactures may be, time only can discover. It will be very long before the subject can be immediately

important to us. But the knowledge cannot fail to be very interesting to such of your readers as have not seen this memoir. It goes to establish a fact as to which there was till of late great doubt, and is indeed an object of much curiosity and gratification. W.

Cashmere Goat, and its Importation into France.

The sight of these shawls, which are brought from Asia, and which spread all over Europe, make a part in the presents of the sovereigns of the east, and adorn the heads and waists of the rich inhabitants of those countries, gave rise to the question among the naturalists of Europe, what species of animal produced the material from which such precious stuffs were made.—Travellers gave no satisfactory information upon this subject. The general opinion was, that cashmeres were produced from a goat, but the particular species was not determined. The importation which has just been made clears up, in part, this difficulty, for these animals produce a down exactly like that of which the most rare shawls are made; I say in part, because it is not impossible that wool may be also employed for this purpose, or that different kinds of the goat may unite to bring the manufacture to perfection. I shall describe particularly those which I have seen upon their arrival at two of our Mediterranean ports.

Their usual height is about 25 inches from the ground to the top of the back, and the length from the beginning of the tail to the head, three feet. Almost all have horns, which are straight, black, and for the most part round; those of some males, as well as females, are thick, furry, white in the majority of individuals, some brown or black, several spotted. They are formed of long hairs, which cover the legs, in part, and a very soft down. The latter is fine in proportion as the hair is long; the quality of one may be known from the other. This down grows near the skin, from which it separates and forms tufts, which can be drawn away by a comb or by the hand. Except in the case of an absolute prohibition, it appears as if our manufacturers could have no interest in importing these downy cashmere goats into France, for the material may be procured in the way of commerce: it would be sufficient for them to imitate the stuff which bears this name. M. Ternaux, so well known by his beautiful establishments, was not of this opinion. He had received, by the way of Russia, down enough to make some shawls; his success gave him the idea of procuring the animal on whose body nature had placed this down. The undertaking was not an easy one. He found in M. Jaubert, Master of Requests, and Professor of the Turkish language, a man of zeal and intelligence, who was not to be repulsed by obstacles, and who was much attached to this country. This gentleman had already travelled in the Levant, and could make himself understood among the different nations. He was willing to undertake the expedition.

In order to obtain the protection of Government, M. Ternaux presented him to the Duke of Richelieu, then Minister of Foreign Affairs. This Minister, who acknowledged the utility of the project, made a contract with Ternaux and Jaubert, in the name of the King, by which Ternaux was to receive a premium of encouragement if the expedition succeeded. The Government was to take a hundred goats at a

price. In consequence of this, Jaubert Paris in the month of April, 1818, recommended by the Duke of Richelieu to the notice of the Emperor of Russia. This Sovereign gave orders in his dominions that the French Consul should be furnished with all the facilities he needed. Jaubert went first to Odessa, Bessarabia, and Astracan, to the camp of General Jermoloff, under the Caucasus, taking everywhere information from the Boukars respecting the Kirghiz and the Armenians, who frequent and inhabit the last of the cities. He was informed that there existed among the numerous hordes of Kirghiz (a wandering people who are called into Boukaria,) on the borders of Oueal, a species of goat which was almost always of a dazzling whiteness, and which bore every year, in the month of June, a remarkable fleece.—The samples shown him convinced him of the conformity of this down with that which came to France by the way of Russia.

The discovery was the more interesting to him, as it saved his time and a troublesome journey in crossing into Thibet, by Persia and Cashmere. He was not deceived, and in some hundred versts from the Wolga, in the middle of the Steppes, which separated Astracan from Semurgu, he found thick down, which convinced him that he would not find it necessary to go much farther. He also remarked that they gave them the name of Thibet goats, in the language of the country, when they spoke of them. He then made his purchases, buying different lots among the Kirghiz of the horde called Kara Agedi (the black tree,) among the Kirghiz of the horde called Kaiskas, in all 229 beasts. He directed his troop towards Saritzin, where he passed the river Wolga. The season became severe, and the mortality among the goats was very great. He had formed a plan of embarking them at Tungarock, but the sea of Azoff was frozen. He was obliged to go along the coast with them to Theodor or Cassa. He arrived there the 24th of December, after having lost 268 of his animals.—On the 14th of February he sent, in a Russian vessel, the only one he could procure, 566, together with some Austrian sheep, under the care of a French supercargo. The vessel arrived at Marseilles towards the month of April: Jaubert had preferred not to come until he could bring the second troop, which he did not choose to leave behind.

It results from the experiment of Jaubert and Bernaux, that from 1,229 goats bought among the Kirghiz, deducting all the losses which have taken place, there are at present in France 400 downy goats of Cashmere.

From the Hallowell Advocate, Jan. 4.

In the Advocate of last week I observed a communication from Samuel Preston, of Pennsylvania, to the publisher of the New England Farmer, wherein allusion is made to a demonstration of friend Preston's rules for gauging published in the Advocate of 8th Nov. last. The author of that demonstration is pleased to see the reasons for the rule given in that communication by the person who invented or discovered it. The *Rationale* of the rule are satisfactory except that it is not perceived how the reasons for performing division by multiplication depend on the neutral properties of an unit. The principle as laid down by friend Preston, of per-

forming division by using a fraction, either common or decimal, as a multiplier, is familiar; but how this depends on the neutral properties of the unit is not readily comprehended. As Mr. Preston, from the tenor of his communications, seems to be a man of some science and ingenuity, and no doubt can fully explain his meaning, it is hoped he will make a more full and minute explanation of his ideas upon the neutral properties of the unit. The relations and properties of numbers are of that abstract nature, that more minute explanation is frequently required to convey ideas to others, than the person in full possession of them deems necessary. But as Mr. Preston has pledged himself to "explain and render" his rule (and of course all his reasons for it) "intelligible to any person master of the common rules of arithmetic," we have no doubt but his ideas upon the neutral properties of the unit, will be made public.

The writer of this would have no objection to a correspondence with any gentleman of intelligence upon a favorite science. Should Mr. P. mean to allude to any other than a public correspondence, and such a wish should be hereafter expressed, the name and residence of the writer of this, can be given him, through a channel of the writer's own choice. C.

On the danger of using vessels of Lead, Copper, or Brass, in Dairies. By Mr. Thomas Hayes, Surgeon, of Hampstead.

From the Letters and Papers of the Bath and West of England Society for the Encouragement of Agriculture, &c.

Many eminent physicians have asserted, that butter is very unwholesome; while others, equally eminent, have considered it not only innocent, but as a good assistant to digestion; and each have been said to ground their opinions upon experience. Perhaps both may be right; and butter may be innocent or mischievous, according as it contains many or few adventitious materials, collected from vessels, &c. used in the process of making it.

I am led to these conjectures by observing, that in almost all the great dairies, the milk is suffered to stand in lead, brass or copper vessels, to throw up the cream. The closeness of the texture of these metals, and their coldness and solidity, contribute to separate a greater quantity of cream from the milk than would be done by wooden trundles, or earthen pans, both of which are also sometimes made use of.

As I wish to establish the possibility of the fact, that milk may corrode or dissolve particles of the vessels above mentioned, and thereupon be liable to communicate pernicious qualities to the butter, I beg leave to submit the reasons from which I draw this conclusion.

Whoever has been much in great dairies must have observed a peculiarly sour, frowsy smell in them, although they have been ever so well attended to in point of cleanliness, &c. In some, where the managers are not very cleanly, this smell is extremely disagreeable, owing mostly to the corrupted milk. In some it arises from the utensils being scalded in the dairy, and in others from a bad construction of the building itself, the want of a sufficient circulation of air, water, &c. but in all, a great deal of the lighter and more volatile parts of the milk fly off from the surface of the pans, and furnish a great quantity of acid effluvia to the

surrounding air and ceiling; which is again deposited on every thing beneath it, and of course often on the vessels, after they have been put by clean, at the times of their being out of use. This may be observed to give a dull sort of an appearance to brass and copper, as if you had breathed upon them; for if you rub your fingers lightly over the vessels, you will have both the taste and smell of the metal.

It also happens sometimes, that after the vessels were washed, they are not carefully rinsed, nor perfectly dried by the fire; so that some of the milk, &c. is left on their surface, which dissolves the metals, either by its animal, oily, or acrescent qualities.

This is not the only way, nor the worst, by which the butter may become impregnated with mischief. The greater the quantity of cream thrown up from the milk, the larger the profits accruing to the dairy-man; therefore he keeps it as long as he can, and it is frequently kept till it is very sour, and capable of acting upon them; if they are of lead, a calx or sugar of lead is produced; if brass or copper, verdigris.

It is true that the quantity cannot be very great; this, however, will depend upon the degree of sourness, and length of time which the milk stands; but, independent of the acid, the animal oil in the cream will dissolve brass and copper.

That an acid floats in the atmosphere of a dairy, may be proved, by placing therein a bason of syrup of violets, for a little time, which will be found to turn red.

If then I am right in my conjectures, as I think I am, from the innumerable experiments and observations which I have made to satisfy myself of the fact, and which it would be trifling to relate here, may not the reputation of wholesomeness, or unwholesomeness of butter depend upon, or be owing to some of the above causes? And may not many a casual, nay, obstinate complaint, which physicians have labored in vain to account for, have originated from this source? Butter is found, very frequently, to occasion much disorder to very weakly, delicate and irritable stomachs, yet these stomachs will bear olive-oil: this cannot easily be accounted for, but from metallic impregnation.

I will not contend, that all the ill effects attributed to butter are caused by the mineral particles, which it gains by the means above stated. I only insist that it is possible, and indeed very probable; and that, when butter is free from these particles, it is not so unwholesome as asserted; though, when it does not contain them, it is found to disorder very tender persons.

To enlarge upon the subject, or attempt to explain the many ways by which a very small quantity of the above metals may prove injurious to the human frame, in some particular constitutions, would be only to repeat what has already been said by older writers.* Some will perhaps say that my ideas are very far fetched, and others that my opinions are ill-founded; but I trust, whoever has read the illustrious researches of Sir George Baker, on the effects of lead, and the melancholy case of a young lady, who died from eating pickled samphire, very slightly impregnated with copper, and which others ate without being diseased, as related by Dr.

*See Sir George Baker's papers on the effects of lead, in the Medical transactions; Dr. Percival's paper on the same; and Dr. Falconer on copper vessels.

Percival, will receive my opinions with less objection. If I have erred, I have done it in honorable company.

I shall be very glad if the foregoing observations have sufficient influence on the dairy-men, to induce them to change their utensils. Very commodious vessels may be made of cast iron, equally well fitted for the purposes of the dairy, which will not be expensive, and will be more innocent and cleanly.

From the Connecticut Courant.

Useful but disagreeable hints on the approach of a New Year.

There is much good sense in the adage "frequent reckoning makes good neighbors." Settlements, however, are often postponed, because there is some trifling disagreement between the parties; and to look over old accounts is a dry undertaking. Add to this our propensity to put off 'till to-morrow, and the too prevalent grossness of feelings regarding the high obligations of justice, and we find the root, from whence spring many bitter quarrels and lawsuits. Wherefore, gentle reader, hear the voice of experience.

Fix on the *first day of January, every year*, as a date, beyond which no controversy of yours shall remain unsettled "so far as in you lies."

If your books are back, take care to have them "posted up" by that day.

If you find any person's account open, which has been paid, *balance it*.

Where the balance is against you, saddle your horse and go directly off and *pay it*—in money if you have it—if not, give your note.

Take especial care when your good easy neighbor, confiding in your honesty, has let his claim lie more than six years, not to permit that plea of rascals, "outlawed," to reduce you first to doubt whether it is due, and finally to offer to settle it, "if he will throw in a trifle." Pray, why did you not pay him before, when his witnesses were living, and the facts fresh? Such claims ought to be paid with interest, and that without delay, lest you die and the executor refuse to pay.

Where the balance is in your favor, do not, by any means neglect such a claim. 'Tis true, your neighbor may have said "he would take no advantage;" but he may die, or forget, or find on seeing your bill that "it is larger than you expected," and he may think you have omitted some credit. You do not meet on even ground.

Is there any matter that lies between you and any one of *doubtful honesty*? I beg of you to see well to that. Such a man, especially if poor, will have a heavy claim *against your estate*, in the event of your decease. Get a discharge from him, and call it even, though he may owe you a trifle. A release from such persons is as good as bank stock.

Finally, let not the light of another new year's morning rise upon you, until you shall have remitted "post paid" all you owe to *proprietors of newspapers*. Those are honorary claims, especially if due out of the state. Should the press stop for want of funds, the land will soon grow dark. You expect a pleasant song from them on that morning—but how can they sing if depressed with debt? They must "hang their harps on the willows," unless "cheered by your corn and your oil." ARISTIDES.

THE FARMER.

BOSTON:—SATURDAY, JAN. 11, 1823.

ON SAVING AND MAKING THE MOST OF MANURE.

(Continued from page 175.)

In our last number on this subject we adverted to WATER and EARTH, as the principal *absorbents* or *treasurers* of those particles or atoms, which constitute *manure*, or what is the same thing, the *food of plants*. We shall now proceed to further observations on those substances, considered as absorbents, treasurers, or receptacles of manure.

Water in its purest state, when it has been distilled, or filtrated through sand, still retains somewhat of the food of plants. Its component particles, oxygen and hydrogen, under certain circumstances, are seized by vegetables while in their growing state, and converted into the products which form the chemical constituents of all vegetables.* But pure water forms a meagre diet for plants. It may support life in vegetables, and some plants will maintain a feeble growth with very little nourishment excepting what is afforded to them by pure water and air. But when water is impregnated with certain salts and gasses, particularly such as are evolved during the fermentation and decomposition of vegetable and animal substances, it becomes what is called LIQUID MANURE. Urine, or the stale of all animals is water holding in solution certain salts and other substances, which are the *essence of manure*, or the food of plants, in a concentrated state. Fresh urine is a very powerful and efficacious manure, when properly applied, but if not mixed with solid matter it should be diluted with water, as when pure it contains too large a quantity of animal matter to form a proper fluid nourishment for absorption by the roots of plants.—Urine is lessened in value, but its useful qualities are not entirely lost, by putrescence. During putrefaction the greatest part of the soluble animal matter that urine contains is destroyed, it should therefore be used as fresh as possible, with the precaution of diluting it with water, or mixing it with earth. Putrid urine, however, is a valuable manure. It abounds in ammoniacal salts; and though less active than fresh urine is still very efficacious.†

According to some writers, and practical farmers, the value of the urine of cattle, if properly preserved and applied to the purposes of vegetation, is greater than that of all the dung which the same animals would yield! A letter from Charles Alexander, near Peebles, in Scotland, addressed to Sir John Sinclair, in 1812, for publication, contains much valuable information on this subject. "This intelligent farmer had long been impressed with the great importance of the urine of cattle as a manure, and he set about to discover by a long and well conducted series of experiments, the best method of collecting and applying it. He began by digging a pit contiguous to the feeding stall, but distinct altogether from that which was appropriated for the reception of the dung. The dimensions of this pit, according to his own account, were 36 feet square, and four feet deep, surrounded on all sides by a wall; and the solid contents were 192 yards. Having selected the nearest spot where he could find loamy earth, and this he always took from the surface of some field under cultivation, he proceeded to fill it; and found that with three men and two horses, he could easily accomplish 28 cubic yards per day; and the whole expense of transporting the earth did not exceed 4l. 16s. sterling, [about 22 dollars.] When the work was com-

* See an account of M. Braconnet's experiments, p. 134.

† See Davy's Agricultural Chemistry.

plete he levelled the surface of the heap in a line with the sewer, which conducted the urine from the interior of the building, on purpose that it might be distributed with regularity, and might saturate the whole from top to bottom. The quantity conveyed to it he estimated at about 800 gallons; but as this calculation was founded partly on conjecture, for he measured not the liquor, it will be better and more instructive to follow and proceed on DATA that are certain and incontrovertible. The urine was supplied by fourteen casks weighing about 34 stone [476 lbs.] each, and lay there for five months on fodder and turnips. The contents of the pit produced 238 loads, allowing two cart-loads to be taken out in three carts; and he spread of these on each acre, so that this urine in five months and from fourteen cattle, produced a compost sufficient for the fertilization of seven acres of land. He states further, that he had tried this experiment for ten years and had indiscriminately used in the same field either the rotted cow dung or the saturated earth; and in all stages of the crop he had never been able to find a perceptible difference. But what is still more wonderful, he found his compost lasted in its effects as many years as his best putrescent manure; and he therefore boldly avers that a load of each is of equivalent value.

"It appears, then, that in five months each cow charges urine, which, when absorbed by loam, furnishes manure of the richest quality and most durable effects for half an acre of ground. The dung pit, which contained all the excrementitious matter of the fourteen cattle, as well as the litter employed in bedding them, and which was kept separate for the purpose of the experiment, only furnished, during the same period, 240, and these, at the same rate, could only manure six acres. The aggregate value of the urine therefore, when compared with that of the dung, is in the ratio of 7 to 6; so that we are borne out by the premises in this extraordinary inference, that the putrescible liquor, which in this province [Nova Scotia] and under the management of our farmers, is wasted and annihilated as far as regards any useful purpose is intrinsically worth more than the dung, as an efficacious and permanent dressing; and if we take into consideration that this latter manure is not treated with any skill and judgment, it will not seem surprising that the culture of white crops has never been carried here to any extent, since we have despised and neglected the only means of creating them."*

We apprehend that the farmers of the United States are not, generally speaking, any more solicitous to turn the urine of their cattle to account for manure, than those of Nova Scotia. There are some cultivators, however, who have taken measures to secure this substance, and to apply it to useful purposes. Mr. Robert Smith, of Baltimore, has his stables constructed in such a manner that all the liquid discharges of his cattle are conducted, together with the wash of the barn-yard into a cistern, pumped into a hogshead and applied in a liquid state to the soil which it is wished to manure. This mode of making use of this substance is likewise recommended in the *Code of Agriculture* as follows:—"The advantages of irrigating grass lands with cow urine almost exceed belief. Mr. Harley, of Glasgow (who keeps a large dairy in that town,) by using cow urine, cuts some small fields of grass six times, and the average of each cutting is fifteen inches in length. There are disadvantages, however, attending this mode of applying this powerful manure. It must be applied soon after it is formed, or oftentimes the putrefactive process will commence, and deprive it of a part of its efficacy. And as urine is of a scorching quality, it is

* *Letters of Agricola*.

† See N. E. Farmer, No. 6, p. 44.

to apply it to growing crops in great heat or
ht. Hence it is unadvisable to use it, except for
after the month of April or May, unless diluted.
particularly useful in the spring, when the appli-
of liquid manure gives a new impetus to the
and makes its growth more vigorous. This ma-
forces newly planted cabbages in a most remark-
nanner."

It is true that more manure can be obtained from
ale of cattle than from their dung and litter, in
proportion of 7 to 6 (as would seem by Mr. Alex-
's experiments as above detailed) and that by our
on modes of husbandry this stale is nearly or
squandered away, the discovery is of very great
tance indeed to agriculture. It is nothing less
a method by which farmers may, with a small
ise, somewhat more than double their usual quan-
stable manure. And if farmers should "value
re as a miser does his strong box—should grasp
and hoard it as eagerly and anxiously as a cove-
nan accumulates treasure,"* surely the wise cul-
tor will not grudge some labor and expense to ac-
more than double the usual quantity of so valu-
an article. It is very true there are many things
taken into consideration in all these economical
sses. A principal inquiry should ever be whether
iving will cost more than the benefit arising from
l be worth. Many improvements, which are high-
luable in old and populous countries, where labor
eap and land dear, cannot be advantageously
ed in this country, where the object, in general,
her to make the most of our labor than of our
It is to be recollected, likewise, that in New
nd, during a considerable part of the time in
a cattle are usually housed, the liquid manure is
converted into ice, and, in that state, must be
ferred to the dung-heap, or inconvenient accumu-
s will take place before a thaw would render it
icable to separate the liquid from the solid parts
manure. Still, with all these disadvantages, we
re, in most cases, it is highly advisable to preserve
quid portion of stable manure separate from the
part; especially where cattle are soiled, or horses
ed during all or the greater part of the year. In
ext number, on the subject of these essays, we
se to state some means by which such separation
preservation may be conveniently and economi-
effected.

These expressions, we believe, belong to the Hon.
Peters, of Pennsylvania, but we do not recollect
we found them.

(TO BE CONTINUED.)

stake Corrected.—In our paper of Dec. 28, p. 174,
article headed "Satellites of Venus," which is
tributed to the Buffalo Patriot of 26th Nov. This we
redibly informed made its first appearance in some
h newspaper above a year ago. We are moreover
l that the magnifying power, which that article
as the property of the common mirror, does not
x, but that a mirror will sometimes reflect double or
le images of objects. This circumstance led the
lutta gentleman to suppose that the planet Venus
accompanied with satellites, when for any thing
now to the contrary, her ladyship is as destitute
f attendants as a belle of the last century, whose
ms have long since faded into non-entity.

FARMER SUMMARY OF NEWS.

CONGRESS exhibits appearances of industry, and
he is every indication of the session's being less
ly, not so windy, and more efficient than some pre-
g ones. Mr. Cannon has shewn himself to be a
piece of ordnance by sundry reports, which we
not calibre sufficient to repeat. They relate, how-
to improving the Militia of the U. States—Of in-

quiring into the expediency of continuing the prefer-
ence given to West Point Cadets in entering the public
service over those of Patridge's Academy and others—
Of employing the regular army in building fortifications
—A statement of the duties performed by navy officers,
&c. A bill has been reported for allowing the mother
and sister of the late Wm. H. Allen, \$150 per annum
each, for five years.—Resolutions have passed both
Houses for inquiring into the present state of the trade
and intercourse between the U. States and the Island
of Hayti, and report what measures would be necessa-
ry to improve the commerce of both countries.—Mr.
Taylor, of N. York, has moved a resolution, That the
Committee on the Judiciary be instructed to inquire
into the expediency of allowing costs in all cases where
damages may be recovered for the violation of the
rights of patentees, under the several acts concerning
the issuing of patents for useful discoveries and inven-
tions.

FOREIGN.—An arrival at New York from Havre,
brought Paris papers to the 19th November, containing
the latest advices from Europe. By them we learn that
the Congress at Verona held their first business session
on the last day of October. The assembly deliberates
with closed doors, and of course, nothing to be depend-
ed upon, can be gathered respecting their proceedings.
With regard to Greece, the accounts look encouraging.
Letters from Trieste, [no date given] inform that a
large body of Greek troops had penetrated from Liva-
dia to the southern part of Thessaly, where they at-
tacked and entirely defeated the forces of Chourschid
Pacha, collected there—details not received. The
Turkish fleet which suffered so severely in the Morea,
had finally arrived in the Dardanelles, and its distress-
ed condition had spread dismay throughout the whole
city. It is said, likewise, that the Greeks had gained
great advantages over the Turks in Candia.

A firman has been issued by the Turkish government,
prohibiting the use of furs, gold lace, cashmere shawls,
&c. which has excited much agitation in Constantinople;
& the English merchants there, were seriously
affected by its operation.

A Vienna article, dated Nov. 2, states, on the author-
ity of letters from Verona, that the Ministers of the five
powers there, have unanimously voted to disapprove of
the progress of events in Spain, and that the interests
of Europe will not allow them to remain as they are.
This is to be formally and officially notified to the
Cortes by a manifesto. Should they refuse to listen to
this memorial, the ulterior measures of the Cortes will
be looked for with anxiety. And it is said that the only
answer which the Cortes will give to any Manifesto
from the Congress at Verona, will be a decree to raise
an additional army of 100,000.

A Paris paper says "it is believed that Russia, Aus-
tria and Prussia are determined to extinguish every
spark of revolution." The French government, howev-
er, says a London paper, are determined to abide by
the decision of England, in regard to Spain.

The Caledonian Canal, in Scotland, which opens a
communication between the eastern and western seas,
was opened the latter part of October. It is nearly 20
years since it was commenced, and it cost 900,000*l*.

Three bottles of green Gooseberries were lately acci-
dentally dug up in England. They were in excellent
preservation, although it is thought they had been bur-
ied a century or more. So says an English paper.—
Might it not be well to try some experiments suggested
by this fact?

DOMESTIC.—An ingenious mechanic in Philadel-
phia, has invented a new safety lock, to which he has
given the name of *Patent Trap Lock*. It is contrived
so that any key but its own being introduced into the
lock, is made fast, and cannot be removed. The con-
struction is simple, yet if five hundred locks were made,
no key would fit any other than the one for which it
was intended.

Counterfeit three dollar bills of the Eagle Bank of
New Haven are in circulation in New York. They are
intended to imitate those of the letter C, and are made
payable to J. Ingersoll, dated Dec. 1st, 1818. The
imitation is said to be very good, and well calculated
to deceive.

A meeting of Printers and Booksellers of Philadelphia,
has been called to choose a person to attend the four
hundredth grand anniversary of the invention of the Art
of Printing, to be celebrated at Haerlem, in Holland,
in 1823.

The Hon. James Lloyd has been elected a Senator
in Congress for six years from 4th March next.

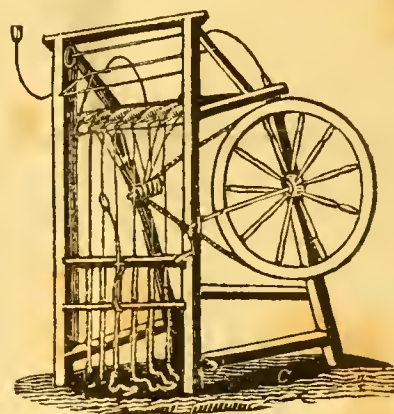
The Hartford Brewing Company offer a premium of
twenty dollars, or a silver cup, or any other plate of
that value to the Farmer who shall raise, sell, and de-
liver to the said Company, at their Brewery in that city,
the best lot of Barley, the growth of the ensuing season,
not less in quantity than one hundred bushels, being
the produce of one farm—the quality of the barley to
be ascertained by the weight of it.—For the next best
lot of one hundred bushels, on the same terms, they
will give a premium of ten dollars, in addition (in both
cases) to the current price of barley. The barley to be
delivered before the first day of January, 1824, on which
day the premiums will be declared and paid. This no-
tice is signed by Lorenzo Bull, agent.

On the 1st inst. during the snow storm, a barn was
burnt at Hebron, Con. belonging to Mr. Daniel White,
of that place—supposed to be the work of an incendia-
ry. A horse, wagon, and a considerable quantity of
grain were thus destroyed.

Ripe cherries were gathered near Norfolk, on the
4th of December last.

Miss Ann Robins, aged 22 years, was lately drowned
in the river, opposite Middletown, in Connecticut. A
number of young persons went to the river for the pur-
pose of sliding; the deceased, with another lady, and
two young gentlemen ventured on the ice, when she,
with one of the gentlemen, slid within four or five feet
of the glade, before they perceived it; but they were
moving with so much rapidity as to be unable to check
themselves, and plunged into the water. She had hold
of the gentleman's arm, when they went in, but im-
mediately released her grasp; he turned round and
took her by the arm; she then got hold of the ice but
it gave way; he continued supporting her till his feet
becoming entangled in his cloak, he could support her
no longer. He succeeded in getting hold of the ice,
and was saved, but was unable to stand when taken
out of the water.

The paper-mill of Gen. L. Burbank, in Fitchburgh,
with its contents, was destroyed by fire on the 3d inst.



BROWN'S PATENT VERTICAL FAMILY SPINNER.

FOR SALE, at the Agricultural Warehouse, in
Chambers No. 20, Merchant's Row, (opposite
the East end of the Old Market)—a number of

Brown's Patent Family Wool Spinners,

which are found on trial to be one of the most useful
domestic implements that have ever been invented for
that purpose, being of so simple and easy construction
that a girl of the age of 15 can well do the work of six
persons in spinning, and so compact in its form as not
to require so much space as a common family spinning
wheel. The advantage of this machine over and above
the common mode of family spinning, is at once tested
in a few minutes operation with the machine; it at
once discovers its immense saving of labor, its accuracy
in spinning a good thread, and the quantity it will
spin. It requires no further examination to judge of
its utility than to see it operate. It is afforded at so
low a price as to bring it in common use to every prac-
tical farmer, and is well calculated for the employment
of the inmates of our common town's poor houses.—
Any number of Machines can be furnished at the short-
est notice, and warranted. Jan. 11.

FOR THE NEW ENGLAND FARMER.

*The Pig and the Connoisseurs; or Nature out-acted.
An Apologue for Critics.*

[Altered from SMART, a British Poet.]

A wealthy cit, the other day,
Having a notion for display,
Built him a large, commodious stage
To show the mirror of the age,
Invited all of Thespian fame
All critics too of any name,
The chiefs and followers of the ton
For actors, or for lookers-on.
To this assemblage with the rest
There came a genius who profess'd
To have a curious trick in store
To set an audience in a roar.
Throughout the city this got air,
And every body came to stare.
The actor soon his entry made
With neither prompter nor parade;
'Twas all attention, all suspense,
And silence gagg'd the audience.
He hid his head behind his wig,
And with such truth took off a pig:
All swore 'twas serious and no joke,
And doubtless underneath his cloak
The man had hid a grunting elf,
Or was a real hog himself.
A search was made, no pig was found,
With thundering claps the walls resound—
Box, pit and galleries jointly roar,
"O rare! O brave! encore! encore!"
Old Roger Grouse, a country clown,
Who yet knew something of the town,
And like some other countrymen
Would have his notions now and then,
Thought it not fair that our metropolis
Such genuine humor should monopolize—
Beheld the mimic, and his whim,
And on the morrow challeng'd him,
Declar'd 'twas true, as scale of Gunter,
He could out-grunt the famous grunter.
The trial came, but each spectator
Was prejudic'd, and rank ill nature
Usurp'd the minds of men and wenches,
All came to hiss, and break the benches.
The mimic took his usual station,
And squeak'd to general approbation.
Again "encore! encore!" they cry,
"This beats the Old Nick, high and dry."
But Hodge conceal'd, amid the racket,
A real pig beneath his jacket—
Then forth he came, and with his nail
Pinch'd the poor noisy urchin's tail.
The tortur'd pig, from vocal throat
Pour'd forth the natural swinish note;
Pit, box and gallery bawl'd "egad,
"Sure never stuff was half so bad,
"Was never actor made a greater
"Departure from the line of nature—
"That like a pig?" each cried in scoff,
"Pshaw! nonsense! bockhead! off! off! off!"
The mimic was extoll'd, but Grouse
Was hiss'd and hustled from the house.
"Hearken—one word before I go,"
Cried honest Grouse, and stooping low
Produc'd the pig, and thus aloud
Address'd the stupid, partial crowd:
"Behold and learn from this poor creature,
"How much you critics know of nature;
"Fools will be fools in spite of art,
"While nature acts a natural part."

From Silliman's Journal of Science.

LEGHORN HATS.

On the Material and Manufacture of the Italian Bonnets, and the Habits and State of Society of the Manufacturers.

Chateauvieux, in his agreeable and instructive letters, written from Italy, to Pictet, in 1812 and 1813, describes the persons who manufacture the Tuscan bonnets, and their state of society. In his sixth letter, which is dated at Florence, are the following observations:

"The road I travelled, was bordered on both sides with village houses, whose distance from each other did not exceed one hundred paces. They are all built of brick; and the architect has bestowed upon them a justness of proportion, and an elegance of form, unknown in our climates. They consist of a single pavilion, that has often but one door and two windows in front. These houses are always situated along the road, and separated from it by a terrace and supporting wall, some feet in breadth. Upon this wall usually stand several vases of the antique shape, containing aloe plants, flowers and young orange trees. The house itself is entirely covered with vine branches; so that, during summer, one knows not whether they are so many pavilions of verdure, or dwellings prepared for winter.

"In the front of these houses, swarms of young country girls are seen, dressed in white linen, with corsets of silk, and straw hats, adorned with flowers, inclining to one side of the head. They are constantly occupied in braiding the fine plait, the treasures of this valley, from which the straw hats of Florence are made.

"This branch of industry has become the source of the prosperity of the valley of the Arno. It produces, yearly, three millions of livres; which are distributed exclusively among the women; for the men never engage in this occupation. Each young girl buys for a few pence the straw she wants: she then exerts her skill to braid it as fine as possible; and she herself sells, and for her own profit, the hats she has prepared. The money she thus earns constitutes her portion. The father of the family has nevertheless the right to require of the women belonging to his house, a certain amount of rustic labor on the farm. He receives this labor from the females of the mountains (the Appenines,) whom the girls of the plains pay, out of the produce of their hats, for performing the task in their stead. One of them can earn from thirty to forty sous a day in braiding her straw, while she can hire a poor Appenine woman to do her field labor for eight or ten; and they secure, by this commutation of service, the delicacy and flexibility of their fingers necessary for their nice and fine work, and which would be spoiled by such exercises as harden and stiffen the hands.

"Such, Sir, are the female peasants of the vale of the Arno; whose grace and beauty are so celebrated by travellers; whose language, Alfieri went there to study; and who seem, in fact, born to embellish the arts, and to furnish them models. They are shepherdesses of Arcadia, but they are not peasants—they possess only the health and freedom from care of that state, and never know its anxieties, its sun-burnings, and its fatigues.

"I have been informed, that a crop of acres is sufficient for all the straw of the manufacture of Tuscany. This straw is a product of a headless wheat, harvested before it is quite ripe, and whose vegetation is warded by the sterility of the soil. This straw is selected among the calcareous hills; it is never manured, and the seed is sown very thick. These habitations, so near to each other, show of themselves that the domains to which they belong are very limited, and that property is remarkably subdivided in these valleys. In fact, the extent of these little plantations is only from three to ten acres. They lie around the dwelling, and separated into lots by small canals and rows of trees. These trees are sometimes mulberries, almost always poplars, whose leaves serve to feed their animals. Each of them sustains a vine, whose branches the cultivator twines in a thousand directions.

"These lots laid out in long squares, are extensive enough to be cultivated by a plough without wheels drawn by two oxen. There is one pair of these creatures among ten or dozen of these tenants; and they are employed in succession, for working all the farms in connexion. These oxen came from the state of Rome and Maremmes; they are of the Hungarian breed, and are exceedingly well kept, being covered with white clothes, decorated with a great deal of embroidery, and with small tassels.

"Most of these land laborers keep a horse of a fine and elegant form. He is harnessed to a small two wheeled cart, neatly constructed, and painted red. It serves for all the purposes of transportation on the farm, and more especially to convey the good man's daughters to the market and the ball. Accordingly, on holidays, the roads are filled with hundreds of these little carts, moving in all directions, and carrying young girls, adorned with flowers and ribbons.

"The farms of the valley of the Arno have not forage enough to support cows: the cultivators, therefore, feed heifers only. They buy at the age of three months, and keep them until eighteen, when they are sold to the butcher, and young ones bought in their place. It is from the pastures of Maremmes that drovers bring the heifers to the fair in the valley of Arno.

"You will comprehend the motive for this practice, when I shall have explained to you the feeding systems adopted in these valleys. There is no natural meadow. The leaves of the tree, the trash of the legumes, and a little clover are the only feed for the animals. In this country, every thing is reserved for men, whose numbers have augmented beyond measure, under the most ancient civilization, &c. &c.

The plant it will be remembered, of which the finest Leghorn bonnets are made, is a white—varieties of the summer and winter wheat of the Arno.

Connellor Littienstern, of Frankfort on the Maine, has published a very singular work, which he attempts to prove, argumentative and methodically, that the predictions respecting Anti Christ are now on the eve of being accomplished. Anti Christ, he asserts, will appear in 1823; his arrival will be succeeded by ten years religious wars; after which the Millennium, as he assures us, will commence in 1836!

NEW ENGLAND FARMER.

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No. 25.

DISEASES OF CATTLE.

LECTED AND COMPILED FROM THE BEST AUTHORS,
BY THE EDITOR.

Fog Sickness, Hoven, or Blown.

"We come now to treat of a class of diseases all more important, with respect to horned cattle, than the foregoing; that is, obstruction, or imperfect action, in the organs subservient to digestion. Under this head will be brought *Fog Sickness, Hoven, or Blown; Gripes, or Flatulent Colic; Indigestion, loss of the Cud; and Rindice, or Yellows.* These diseases, however, will be better understood, if we give, in the first place, a short description of the cow's stomach. All animals, which ruminate, have more than one stomach; in the cow there are four; the first is considerably larger than the rest, lies on the left side, and is commonly called the *paunch*. The food, having been sufficiently macerated in this stomach, is forced up gradually into the mouth, where it undergoes a complete mastication, which is termed *chewing the cud*. The food is then again swallowed, and conveyed to the second stomach, for the gullet opens indifferently into both. It ends exactly where the two stomachs meet; and there is a smooth gutter, with rising edges, which leads into the second stomach, and thence to the third and fourth: the animal, however, has the power to direct it into which it will. The second stomach is named the *bonnet, or ling's hood*. Its internal surface consists of cells, resembling a honey-comb; where the food undergoes a farther maceration, and is then conveyed to the third stomach, called *manplies*; because the internal surface rises up into many folds. Some of those folds are longer than others, and on their surface small glands may be seen, something like millet seed. From this it passes into the fourth, or red stomach, commonly called the *caul*. This much resembles the human stomach, or that of the dog; only the inner folds are longer and looser. Here the food is perfectly digested, and prepared for the nourishment of the animal.

"When cows or sheep are turned into a fresh pasture, of a different kind from that they had been accustomed to, they sometimes eat so greedily, that the stomach is incapable of contracting, or forcing back its contents into the mouth. When this happens, the food undergoes a kind of fermentation, in consequence of which a great deal of air is generated, and the paunch so excessively extended, that, if the animal is not relieved, it will either burst or destroy him by suffocation. An instrument has been invented by Mr. Eager, for giving vent to the confined air, which is very simple and appears to have answered the purpose completely. It consists of a cane six feet in length, with a round knob of wood, perfectly secured at one end. An assistant is to lay hold of the cow's horn with one hand, and the part which divides the nostrils with the other. The operator is to take the tongue in his left hand, and with his right he is to force the instrument down the gullet. As soon as it enters the paunch a great deal of air will rush out. The instrument may

remain in the stomach, without injuring the animal, until the air is perfectly evacuated.

"It sometimes happens, that the distention of the paunch takes place so suddenly, and in so dangerous a degree, that no time is allowed for using the instrument; in this case a sharp pointed pen-knife may be plunged into the paunch through the skin, by which the confined air will immediately escape. There is no difficulty or danger in the operation; nor is any other instrument required than a sharp pointed pen-knife. Should the opening be plugged up with the contents of the paunch, they may be removed, or the orifice kept open with a probe or feather. When all the air has escaped, let the wound be closed with any kind of sticking plaister, or pitch. This opening is to be made on the left side, between the haunch bone, and the last rib."—*White's Treatise.*

Clayter, an English writer on Farriery, directs this last mentioned operation to be performed in the following manner.

"Take a sharp pen-knife and gently introduce it into the paunch, between the haunch bone and the last rib on the left side. This will instantly give vent to a large quantity of fetid air; a small tube of a sufficient length may then be introduced into the wound,* and remain there until the air is sufficiently evacuated; afterwards take out the tube, and lay a pitch plaister over the orifice. Wounds of this kind are seldom attended with danger; when it has arisen, it has been occasioned by the injudicious operator introducing his knife into the wrong part. After the wind is expelled, and the body has been reduced to its natural state, let a cordial drench be given."

Dr. Monro, Professor of Anatomy at Edinburgh, invented an instrument, which was intended to answer the same purpose with the invention of Mr. Eager, above mentioned. It consists of iron wire about one sixteenth of an inch in diameter, twisted round a rod three eighths of an inch in diameter, and made of polished iron, in order to give it a cylindrical form; the wire, after being taken off the rod should be covered with smooth leather. To the end of the tube, which is intended to be passed into the stomach, a brass pipe two inches long of the same size, or rather bigger than the tube, is to be firmly connected; and to prevent the tube from bending too much within the mouth, or gullet, an iron wire, one eighth of an inch in diameter, and of the same length as the tube, is put within, but afterwards withdrawn, when the tube has entered the stomach. As Dr. Monro has ascertained that the distance from the fore teeth to the bottom of the first stomach of a large ox, is about six feet, the tube ought to be at least two yards long, that it may operate effectually in the largest oxen. When the instrument has been introduced into the stomach, it may remain there for any length of time, as it does not obstruct the respiration of the animal: the greater part of the condensed air will be speedily discharged thro' the tube;

* This may be of elder, sumach, or a turkey, or goose quill.

and should any ardent spirits, or other liquor be calculated to check the fermentation, be deemed necessary, it may be safely injected through this pipe. In short, the flexible tube here described, has been found of infinite service in saving the lives of cattle and especially of sheep, when subject to similar disorders, or any other swelling peculiar to those creatures.*

The 33d vol. of Mr. Young's *Annals of Agriculture*, announces the following recipe as a specific for this disease, even in the most desperate cases; effecting a cure within the short space of half an hour. Take three quarters of a pint of olive oil, and one pint of melted butter or hog's lard; give this mixture by means of a horn or bottle; and if it does not produce a favorable change in a quarter of an hour, repeat the same quantity and walk the animal gently about. For sheep attacked with this malady, the dose is from a wine glass and an half to two glasses.

The following simple remedy we have been told is effectual, but cannot say to what extent it may be relied on. Make about a pint of lie, either with hot embers thrown into a sufficient quantity of water, or by dissolving therein about an ounce of pot or pearl ash, and turn it down the throat of the ox or cow affected. A proportionably less quantity is said to answer for a sheep. This medicine, we are informed, operates by neutralizing and absorbing the carbonic acid gas in the stomach of the creature, which causes the swelling and other symptoms to subside. We wish this remedy might be tried, and its results made public. We suspect, however, that in extreme cases, it will be necessary either to make an incision, or make use of Dr. Munro's flexible tube, or Mr. Eager's cane with a knob of wood at its end. Where the danger, however, does not appear to be imminent, there is little doubt but that either the oil and lard, or the lie, as mentioned above, would prove effectual.

When the animal has obtained relief by the means mentioned above, one of the following drinks is by Dr. White recommended to be given.

No. 1.

Powdered ginger,	1 oz.
Spirit of nitrous ether,	2 oz.
Oil of peppermint,	30 drops.
Warm water,	1 pint.

(Mix for one dose.)

No. 2.

Powdered caraway,	1 oz.
Ginger,	1 dr.
Warm ale, [or warm water,]	1 pint.

(Mix.)

No. 3.

Powdered gentian,	1 oz.
Cascarilla bark,	2 dr.
Warm ale, [or water,]	1 pint.

(Mix.)

An infusion of camomile flowers and ginger is also a good stomachic in such cases.

When cattle have suffered a severe attack of this disease, the stomach is generally weakened by it; great care, therefore, is necessary, in or-

* See Domestic Encyclopedia, Art. Cattle.

der to prevent a return. For several days after, they should be fed rather sparingly, or not be allowed to eat much at one time; and every morning and evening, for three or four days, may take one of the above drenches.

Sheep are liable to a similar disease, and may be relieved by the same remedies. The instrument, however, employed for sheep, need not be more than three feet in length; it should also be smaller and more flexible. It has been said that a common cart whip, may, on emergencies, be made to answer the purpose, if used with dexterity.

Any one, unaccustomed to handle cattle, would find some difficulty in using Mr. Lager's instrument; but if the horn be held firmly with the left hand, and the part which divides the nostrils be grasped firmly with the right hand, the animal will generally submit quietly to the operator.

(TO BE CONTINUED.)

Although we do not fully concur with the author of the following Address in all the opinions it contains, we fully appreciate its general merits, and are therefore pleased with an opportunity of giving it a place in our paper. We have taken the liberty to attach a few notes to such passages as do not fully coincide with our own ideas. We would not, however, be tenacious of our sentiments, unless founded on truth, and will readily retract them if shewn to be erroneous.

ADDRESS, delivered before the Ontario, (N. Y.) Agricultural Society, at its fourth Annual Meeting, October 22, 1822. By THOMAS D. BURBANK, Esq.

Gentlemen of the Agricultural Society,

In addressing the present assembly, almost every member of which is probably as well acquainted with the details of agriculture as myself, I can hardly hope to offer much matter that will prove interesting from its importance, or pleasing from its novelty.

We live in an age in which every field of useful knowledge is eagerly and successfully explored; and in a country, throughout which the means of correct information are as free and extensive as the air we breathe.

A spirit of inquiry has gone abroad, through every department of science; and, what may perhaps be justly claimed as distinguishing and elevating the present age above former times, is the fact, that the lights of science, and the laborious investigations of learning, have been called to the aid of useful arts, and no longer waste their strength in toiling through metaphysical disquisitions without end, or the discovery of truths that can have no practical use.

Learning is no more subject to monopoly, but is actively engaged in the service of the arts; and what has heretofore been claimed as the privilege of sects at schools, is now the property of the community, for the benefit of all.

Agriculture, which had long been degraded from its just place in the scale of human occupations, has assumed its proper rank in public estimation, and the name of "Farmer" has ceased to convey to the mind any idea of boorish inferiority or servile dependence.

Agriculture is no longer a plodding art, in which we blindly persevere in inveterate hab-

its, for no better reason than that our fathers have pursued them before us; but has become an interesting science, in which all the powers of the human mind have been called into action, and all the various resources of mechanical power have been put in requisition to aid its progress.

The advance of knowledge has been bold, rapid, decisive. Improvements have been introduced, that leave us to wonder how so many centuries should have rolled away without their discovery and practical application.

All this has been effected, not by chance or accident, but the mighty force of the human mind, steadily directed in pursuit of truth, guided and governed by reason and observation.

Chemistry, botany, mineralogy, and the principles of mechanical power are no longer the sources of useless experiment to the philosopher and scholar, but are pressed into the active service of Agriculture and Manufactures—and in short, every branch of science is rendered subservient to the supply of our wants, and the gratification of a refined taste.

One cause of this rapid increase of useful knowledge, has been the practice universally adopted, of following boldly the evidence of experiment, wherever it may lead, rejecting theory on mere authority, and especially of reasoning from facts to general principles.

The want of this habit of correct investigation, and of arranging and systematizing our ideas, often perverts and defeats our best endeavors in the pursuit of knowledge; and it is to this point that I wish, at present, to direct your attention; and though I should fail to present any new facts to your observation, yet should I convince you of the utility of establishing general principles, and of applying them to every thing connected with your pursuits and occupations, I shall not deem my labor altogether vain.

In glancing our eyes over the mass of matter already accumulated for the improvement of Agriculture, we feel, not so much the want of materials, as of skill to select and apply them to advantage.

Facts and experiments have been so abundantly multiplied upon us, that the field of agriculture is completely overrun by them, and the plain practical farmer, although abundantly supplied with the means of improvement, is still at a loss how to use them to advantage. Within the last few years particularly, since agriculture may be said to have become fashionable, new experiments are so eagerly pursued, that it may be well to pause a moment, and while delighted with the novelties of the day, to profit by the idea before suggested, of searching for evidence, and rejecting authority. In doing this, we shall find much to approve and adopt, and very much to discard, as erroneous or useless. And here I would be understood not as answering or disapproving the efforts that are making to advance the agricultural interest. In every art, a great proportion of experiments must necessarily prove unsuccessful; but it is the part of wisdom still to profit by them, for even an unsuccessful experiment may at least furnish the basis of improvement in more skilful hands, and thus often lead to some unexpected and satisfactory result. But I would suggest to those whom I have the honor to address, while engaging in new

schemes of improvement, the importance establishing in our minds some fixed principle of testing such facts and experiments as are presented to our observation. And here it may be well to remark, that agricultural experiments are subject to many variations and errors, which must not be overlooked in forming an opinion.

In the first place, much depends on the care and accuracy of the experimenter, in every science. But in addition to this, experiments in vegetable economy are subject to all the accidental changes and variations of the seasons—untimely droughts, excessive rains, &c. beside such mistakes as occur from the difficulty of distinguishing the difference of soils, &c.; but what demands peculiar care in receiving foreign experiments, is that we are exceedingly liable to errors arising from the different character of soil and climate, which may essentially vary the result of a particular experiment in mode of husbandry. Hence arises the necessity that the practical farmer should scrutinize facts closely, reason clearly, and reject authority boldly, unless supported by repeated and satisfactory experiment. These principles, combined with patient industry in their practical application to our farms, contain the element of that promethean fire, which can warm and quicken the cold and inanimate earth into life and action. In the character of the American farmer, accurate observation, and close industrious discrimination in experiment, are more wanting, at present, than ingenuity in inventing, or boldness in adopting theories.

In the paths of science as of life, the careless traveller may range delighted through the universe; and still return as ignorant as he went but to him who observes attentively, and digest and arranges his observations closely and methodically, every step adds new interest to his inquiries, and furnishes fresh food for his mind. With a keen and observant eye he examines each object, profits by the skill of others, and improves each discovery to some useful purpose. But in roving abroad for new sources of profit, we should never overlook or neglect those already in possession.

The flow of knowledge has been so rapid that we seem at times, in our eagerness for improvement, to have almost lost sight of many of those landmarks that are necessary to our security. I would not in the least check a spirit of inquiry in my countrymen, but would only refer to the proper means to render that spirit efficient and profitable. To this end, I would recommend the practice of often examining our own grounds, for the purpose of ascertaining their soils, situations and capabilities of improvement; to search for causes of failure or success in our various experiments, and above all, to form a general plan of operations, which may never be lost sight of in the eager pursuit of novelties.

In doing this, it is useless to confine ourselves with speculative disquisitions, or refined theories on the processes of vegetation—to inquire, for instance, how plants grow, whether they are nourished by the earth, the atmosphere, or both—it is sufficient for our purpose that they do grow, and their health may be promoted by our care, or destroyed by our neglect—Whether smut in wheat springs from disease or insect, or a parasitic plant—Whether plaster acts by being calcined and then imbibed as nourishment,

merely by its attractive properties on the atmosphere—Whether certain applications to the trunks of our fruit trees afford nourishment to the bark, or act mechanically as a shield to protect it from the attack of its enemies—are of less importance, than to know what is necessary, in each case, to produce the desired effect.

These questions form subjects of inquiry to the curious and attentive observer, and are more or less important; but should serve rather as pleasing sources of amusement and relaxation during the hours of leisure, than as claiming our labor or care.

And here permit me to explain my ideas more fully, by a few plain practical rules and observations:

1st. Every farmer should form to himself a *general plan of husbandry*, to be pursued on his farm.

To do this to advantage, let him regard attentively his grounds as to soil and situation—let him ask to what are they best adapted—ploughing or grazing, or are they fit for both? What is my supply of labor and money, and where are they to be rendered the most productive?—Where is my market, what articles command the best price and readiest sale, in proportion to the expense of raising them?

2d. Having chosen your course generally, see that your buildings and grounds are arranged in the most convenient manner for your purpose; & in our lovely and fertile country we may justly be reproached for want of taste, if we do not generally give our fields a pleasing and regular appearance, as this not only adds to the beauty of the farm, but also saves labor and materials. And we remark, that small fields are most profitable, especially for grazing. For pasture, twenty acres, divided into three fields, and pastured in rotation about ten days or a fortnight at a time, may be considered equal to thirty, if kept one, by the relief the parts afford each other. Look to your fences—see that they are good and substantial. Without this, you may consider yourself at best, but as a joint tenant with all the marauding flocks and herds in the neighborhood. Let your fences then, especially the better ones, be sufficiently high and strong to resist not only your own cattle, but also those that test the highway, and live by plunder.

In apportioning your grounds, do not forget to reserve an abundance of your best timber for fuel, fences and other purposes. To many, this may seem a needless caution, while so large a portion of the country is covered with wood;—but I have no doubt there are some who hear of it, who have reason already to regret their wanton destruction of this necessary article. I know it is perfectly natural, on entering our new lands, to feel that there never can occur a want on this head; but it is astonishing to mark how fast these forests disappear before the axe of the woodsman. Estimate then the amount necessary for your use, and a perpetual supply to the farm, and be sure rather to overrate than to undervalue the least to fall short in your estimate.

3d. In trying new experiments, or making improvements, still keep your *general plan* in view—try nothing but what will be profitable to yourself if successful, and nothing *inconsistent* with your other pursuits. Whatever you attempt, do it thoroughly and accurately—be sure of your *facts*, for false premises necessarily lead

to wrong conclusions. Above all, let your work be done in season. The best tillage is but labor lost, unless bestowed in time to render it productive; and I remark upon this because it is too generally neglected. We often put off our work until the moment is past to render it profitable, and are then driven in our haste to do it imperfectly and unprofitably. This is particularly the case with our fall sowing; or rather we feel the pernicious effect most in this, because it is our most important operation. Generally speaking, early sowing is advisable in our country, where none of those objections, which operate against it in old countries, exist to any great degree. Rye, if sown early, yields an abundance of excellent pasture, sufficient in fact to pay the whole expense of cultivation, and may be fed down without the least injury to the crop, in the spring when it is most needed.

4th. Endeavor, as far as practicable, to remedy physical defects, such for instance, as the want of water, by leading in streams, or digging wells—superfluous moisture, by draining, &c.—want of materials for fences, by planting trees or hedges.

Remove loose stumps, stones, logs and other obstructions that impede the plough, and render the cultivation imperfect, and of course unprofitable; for remember that a field half tilled is better let alone. Never starve your stock or your farm from a desire to save too much. Furnish to your teams and stock of every kind an abundance of generous food, to your farms a supply of manure, and they will soon repay you with interest—much is lost by ill-timed economy—never spoil a crop to save expense—whatever should be done, is worth being well done.

But here it may be asked, what is meant by good cultivation, and when is the farmer to think his work well done? I answer generally, our work is well done, when our lands are cultivated in a way to give the *greatest amount of produce at the least expense of farming capital*.—And *farming capital expended*, consists in the yearly value of the land, and the labor and money expended in its cultivation; hence no particular amount of culture can be called good husbandry, but in reference to the relative value of land and labor: for as the price of land is higher or lower in proportion to that of labor, so must the degree of culture be varied in order to render it more productive.

Thus, in Great Britain, where land is dear and labor cheap, much labor should be applied to little land, as the land is in this case the principal part of the capital; and for the same reason a course of farming may be profitably pursued there, which requires much labor in its prosecution. Here, the case is reversed, and of course, we should apply our labor to more land, and should adopt that style of farming, in which most land may be well cultivated with the least labor, as with us the labor is the most expensive part of our farming capital—thus, for instance, if the rent of an acre of land is worth two dollars, and by expending six dollars in cultivating it, we produce twenty bushels of wheat, then the capital expended would be eight dollars, giving a return of two and a half bushels for each dollar expended. Again, if we expend double the former amount on the same acre, then the capital expended would be fourteen dollars, and we ought to receive in return thirty-five

bushels, in order to render our capital as productive as in the first case. Hence the importance of reasoning clearly and boldly on the subject, without regard to authority, as every thing depends on the judicious application of general principles to the concerns of our farms.

When we see high cultivation succeed abroad, we should inquire how far the circumstances that render it good husbandry there, are varied with us, or whether the same mode could be rendered profitable here, since the work that is well done here, might be very imperfect husbandry in England or Flanders, and utterly ruinous in China.

It is certainly pleasing to see fine crops and perfect culture; but this alone does not constitute good husbandry. If fifty bushels of grain can be raised at a less expense of capital from two acres than from one, then we are losers by attempting to force them from one. We have in our country more land than labor; that is, we have more land than can be cultivated perfectly. Of course, then, we want to apportion and apply our labor to our land in a way to render both most productive, and he must be pronounced the best farmer who does this most judiciously, rather than he who produces the greatest number of bushels from an acre by inordinate means.

From the preceding remarks, it would appear, that grazing should be encouraged among us, in preference to ploughing, as in that way most land may be well cultivated by a given amount of labor; and I might also draw another powerful argument to prove that it is too much neglected, from the fact, that while it costs, on an average, one half of the value of grain to transport it to market, cattle, horses, sheep and swine may be taken there for one tenth, and fine wool for one fiftieth part of their value.*

*These observations do not apply to farmers, who live in the neighborhood of a good market; and perhaps the rule "that grazing should be encouraged among us in preference to ploughing," cannot correctly be applied to the country at large. If wheat can be imported from Great Britain, and sold in New York for a profit of 25 per cent. as we are told it has been, we should encourage the growth of that, if no other arable product. We believe that what is called the *convertible system* of husbandry, where a proportion of a farm is cultivated for grain and roots, and a part employed in raising grass for pasture and mowing, &c. is, in general, to be preferred. Exceptions to this rule, are, however, of continual occurrence. Straw is one of the products of arable land, which is very useful where a stock of cattle is kept, if not for food, at least for litter, and to imbibe and retain the strength and richness of the liquid part of the manure. If the preference is long given to any one branch of husbandry, (such as ploughing or grazing) that branch is at length rendered scarce worth pursuing by too many competitors for its profits, and some despised and neglected branch is taken up to greater advantage. A farmer, therefore, will, in general, do well to raise as great a variety of necessary articles as his soil, means of culture, climate, &c. will admit, that he may be able to meet every fluctuation of market, as well as supply his own wants. In other words, he should have something of every thing for sale, and but little of any thing to buy. But even this good general rule may be liable to many exceptions. A farm may be very moist and good for nothing but grass. It is then folly to plough it. It may be dry, and fit for no grass but clover. In

In order then to direct our labor aright, we should accustom ourselves to calculate the expense of raising a given amount of each article of produce—to ask for instance, how much capital, viz. how much land and labor, are required, to produce one hundred dollars worth of grain or stock of any kind, and what is the expense of sending it to market; and we may thus ascertain pretty nearly which may be rendered most profitable.

From the above reasoning too, we should encourage labor-saving machines in husbandry; as this tends to give us an advantage over those countries where lands are dear, by enabling a smaller capital to yield a greater profit. Thus, if labor in England be worth two shillings per day, and here it is worth four shillings, then a machine performing the labor of two days in one, is of double the value to us that it is there.

Again, from a neglect of reasoning, we often waste our labor, and of course throw away so much of the active capital of the country, by directing it to unproductive objects, from a deference to authority. We adopt foreign productions and modes of farming, without inquiring why they are valuable abroad, or whether these reasons do not fail here. I might mention many cases of this kind—for instance, in England, turnips form a cheap and invaluable winter food for stock: they are therefore made a leading crop. We are thence led to think them equally important here for the same purpose, while we neglect to remark, that there the ground is open nearly the whole winter, and the frost never severe; so that most of the turnips are fed without even the labor of removing them from the ground; but that here, they must be secured from frosts at great risk and expense, for months, and are moreover useless for feed at the time when most needed, from the severity of the weather. The ruta бага is of the same class—it is valuable there, as wintering better than the turnip, and thus supplying a chasm in feeding between turnips and grass in the spring. To us, as a crop for feeding, it fills no chasm, and serves no purpose that is not equally well done by potatoes, which are as easily raised, more easily preserved, and nearly four times as nutritious; and yet, to support a theory, we are asked by an individual* to believe that the potatoe (which to us is of more worth than the collective value of all other esculents,) is a mere compound of "dirt, water and straw."

Our climate is such that we can never expect to have a supply of green feed for our stock through the winter on a large scale, because, (aside from the difficulty of preserving it,) it is impossible that it should be eaten in the open air, at those times when it is most needed.†

that case grass should make one in a rotation of crops; and the plough will become the implement in most constant requisition. In short, no general rule on this subject can be given, which has not about as many exceptions as coincidences.

* Mr. Cobbett.

† But perhaps it is as difficult to preserve potatoes, and apply them to the feeding of stock in very cold weather, as it is to preserve turnips, ruta бага, or mangel wurtzel. We have already given a mode of preserving these roots, [N. E. Farmer, No. 14, page 106] which has not only been successfully practised by Mr. Buel, of Albany, from whose essay it was copied, but has been in use by a gentleman in this vicinity for a

number of years, and as we are informed with perfect success. On the whole, we will copy again this mode, to save our readers the trouble of turning over our files (which we wish may be preserved to the third and fourth generation) any oftener than is necessary.

"Be it known, therefore, that mangel wurtzel, turnips, ruta бага, and we presume potatoes and other roots, may be preserved by digging about one foot deep upon the side of a hill, leaving the bottom inclining, and sufficiently broad each way to be able to pile in the space, in the form of a cone, 100 bushels [not more lest they heat, ferment and spoil.] Place the roots in it, and bring the top to a point as far as practicable. Cover with straw and then dirt. They will bear considerable frost without injury. Take care to dig a trench round the mound to turn off water. In March, or perhaps February, you may break through the frost, and take out the roots, lay them on your barn floor, and cover them with hay or straw; from whence they may be fed to cattle."

When the roots are placed in their winter quarters care must be taken not to heap too much dirt on them at first, lest they should heat and spoil. More may be added as the weather becomes colder.

In the last number of the Massachusetts Agricultural Repository [June 1822, page 165] Mr. Prince, a practical farmer, of Roxbury, Mass. says, "I really wish farmers generally, would be prevailed on to raise a greater quantity of vegetables for the use of their stock than they have been in the habit of doing. Swedish turnips, and mangel wurtzel (of the true sorts,) are very easily raised, and every farmer has land suitable for them. These roots with care, even in pits, out of doors, may be preserved till May or June, and yield generally double the quantity that the same land would yield in potatoes. Indeed, with me I have usually had more than three times as many bushels to the acre, and with, I think, no more labor. Mangel Wurtzel will by their thinnings and trimmings, if done with care, pay all the labor of the crop, and give a fine evening food for the cows, and is also an excellent food for swine."

The Hon. Timothy Pickering has given his opinion likewise in favor of Mangel Wurtzel, and we believe the credit of that root is too firmly established to be easily shaken in this part of the country.

With regard to potatoes being nearly "four times as nutritious" as well as being "as easily raised" as the other roots above mentioned, we must beg leave to enter our dissent; and in addition to our preceding remarks would observe, that, although according to Sir Humphry Davy, the quantity of soluble or nutritious matter in a thousand parts of potatoes is from 260 to 200, while the soluble or nutritious matter in the same number of parts of the Swedish turnip, or ruta бага, is but 64, yet the saccharine matter or sugar in the Swed-

the season. And though the practice of green feeding through the winter is much talked by theorists, it is presumed there is not a practical farmer in the state, who pursues it regularly to any great extent.

So with regard to leguminous crops, as starting point in our rotation of crops, which are so constantly recommended. They are profitable in England, for reasons before given, but with us, with the exception of peas, and in some few of beans, they are utterly inadmissible on a large scale, in any general system of farming—for two reasons, first because they cannot be regularly fed through the winter when most needed—and secondly, because they require too much labor in their cultivation. We have not the labor to spare, and half our fields would lie waste, if we had first to cover them with turnips, cabbage, ruta бага, or carrots, before we were permitted to sow the wheat.

Much is said of a proper rotation of crops, but I apprehend it all results in this—that each farmer should regard his own peculiar plan and vary his crops to his wants, taking care never to exhaust his lands by long continuous cropping, or by successive crops of the same kind; and above all, being careful to lay his fields down often to clover or other grasses.

In Great Britain, and in some of the old parts of our own state, flax forms a valuable staple for market, and we, overlooking material facts, are thence led to think it equally valuable here, where the expenses of raising, rotting and dressing, are equal to its whole value in market. We neglect to mark, that labor is dearer with us than there, and that as a large part of the capital expended on the crop is labor, it is therefore profitable to them, but loss to us. We expend more capital on the crop than they.

These remarks upon flax, are of course predicated on the present tedious and expensive mode of rotting and dressing it. Should the machines now offered to the public, answer the

ish turnip exceeds that in the potatoe in the proportion of 51 to from 20 to 15; and the sugar in the mangel wurtzel exceeds that in the potatoe in the proportion of 119 to from 20 to 15, and every one knows that sugar is perhaps the most nutritious of any vegetable product.

It will also appear by the report of the Committee of the Massachusetts Agricultural Society on Agricultural Experiments [published in our paper No. 23, p. 17] that Payson Williams, Esq. received a premium for raising the greatest quantity of potatoes, being bushels on one acre; and that the expense of cultivating the acre of potatoes was \$54. And that Mr. D. Little received a premium for raising 970 bushels: one half a bushel of Mangel Wurtzel on an acre, sides two bushels of carrots and 109 cabbages, at expense of but \$23.96—That six swine were moved with the thinnings from the beginning of weed until about the first of October, that all this was excessive of the produce of apple trees on the same lot. These, and many other experiments which might be cited, equally conclusive, lead us to believe that potatoes are not generally so easily nor so cheaply raised as Mangel Wurtzel. And we are constrained to believe, notwithstanding the "authority" of Mr. Burr, that potatoes may be less profitably raised as food for stock than Mangel Wurtzel. We may, however, in an error, and if so, are open to conviction, and ready to acknowledge our aberrations.

pose intended, that of dressing flax at a small expense, without rotting, (and that they may confidently expected,) then may we assuredly find this as a new era in agriculture, inasmuch as we shall be in immediate possession of an elegant staple, to which our soil is generally well adapted, equal at least in value to the cotton of our southern brethren, and which we can raise at a less expense per pound than they in their cotton, with all their unenviable and unhallowed aids of "sinews bought and sold."

5th. In selecting implements of husbandry, pay no regard to fashion, but examine each article for yourself. See that it is fit for the use intended. If choosing a plough, for instance, never buy it for its name, whether made by Mall, or Wood, or Burden, or Wright. Is your land free from obstructions, and do you wish to do your work well, and with the least possible power of team, choose a plough that presents the least resistance to the soil, and which, from its length and just proportions, enables you to make neat and thorough work: but if your land is still covered with stumps, which leave you scarce room between one stump and another, to parade your team with a plough a dozen feet long at their heels, then try to contract the length of your plough as much as you can, and till be enabled to make tolerable work, as this will save you many balks in your field, and much difficulty and delay in managing your team. Is your land new, and filled with roots which you wish to exterminate—see that your plough be firm, compact and strong, relying on your additional strength of team to carry you through. In short, suit your means to the end designed, and this single simple rule will save you a vast deal of loss and trouble in all respects.

From the foregoing remarks, we may see the necessity of examining facts on general principles, and the danger of relying on authority in the importation of grains, implements and modes of husbandry from abroad, and of trusting to experiments made under circumstances that are unexplained or misunderstood. We see that in England, whence are drawn many of our most valuable improvements, things are often profitable and necessary, that are useless here.—Hence, often, English farmers, on first viewing our style of farming, think it utterly inferior to theirs, when, perhaps, it would be no difficult task to prove, that in the legitimate pursuits of agriculture, viz. the comforts and moral improvements of our population, and for profits of capital employed, we far excel them. Hence too, we are often urged to adopt modes and projects, which, though justified by favorable circumstances abroad, are preposterous here.

To illustrate this, I might refer you to the opinions of many respectable men daily published among us, which are utterly fallacious. Let me point you to a single instance: In one of our most valuable agricultural publications, I have noticed several able letters on Flemish husbandry recommended to our attention—one leading trait of which style of farming is, that the lands are to be dug over with the spade to the depth of eighteen inches, every three or four years! Now this may doubtless be good husbandry in Flanders, where the country is crowded with a population that must be employed and fed, and in order to which the last bushel of grain must be wrung from the earth, without regard to the labor required to produce it—

while in our fertile and happy country the case is entirely different, and the attempt would be absurd and ridiculous.

Here then let us pause for a moment, and call to our aid sober reason and observation. Let us scan closely the claims of every innovation, in order to adopt it if useful or reject it if useless. So far from retarding improvement, this will accelerate its progress, by sweeping from its path much useless matter that now encumbers it. The fashion of the day leads us too far into wild theories and visionary projects;—we go on loosely and unprofitably, without accuracy and without method. I repeat it then, we want at present, not so much crude materials, as accuracy and system in *investigating* and *arranging*, that we may reject or adopt for practical purposes.

I might proceed to remind you, Gentlemen, of various rules which should not be forgotten, but I have already been led to detain you longer than I had intended. My object has been chiefly to draw your attention from splendid theories and experiments, to the ordinary but important concerns of your own farms.

Permit me now to add a few remarks on the objects of our agricultural association, and particularly on the rewards we bestow on prize stock and crops. Their effects are, I fear, in some respects injurious to the true interests of agriculture, by encouraging the growth of *monsters* by inordinate means.

So far as extraordinary crops can be produced from improved modes of culture, or superior stock raised by introducing new species from abroad, or skilful crossing at home, they add to the valuable interests of the community; but to know how to produce one extraordinary animal only by *starving his mate*, or to make two blades of grass flourish where but one grew before, only by robbing the next field of its due proportion of nourishment, adds nothing to our stock of valuable knowledge, or the prosperity of the country.

Beauty, in every system, is founded on the symmetry of its parts, and whatever tends to destroy its just proportions in one particular, must be viewed as injurious to the whole. If, then, premiums for large crops, without regarding expense, tempt to an undue use of our farming resources, and this is evidently their direct effect, then it must follow, that they are injurious to our interests. This idea, however, is suggested with great deference to the present general opinion and practice; but may I not ask, has not this practice grown out of the erroneous position, that good husbandry consists in producing the greatest crops? whereas, to judge of its excellence, we ought first to know the expense of producing them, in order to estimate the profit on the capital employed.

Should not the premium be more justly due to him who should instruct us by a skilful and judicious application of labor to land, how to raise a hundred bushels of grain at the least possible expense, than to him who, by an unprofitable and extravagant use of his farming resources, should force it from a single acre? In short, have we not adopted a wrong principle on which to ground our rewards, by mistaking the object to be attained, and bestowing them on the gross amount of produce, and not on the net profit of the capital employed?

Let us then require of each claimant, at least

a statement of his *expenses*, as well as the mode of culture—we may then judge whether his mode be profitable, and ought to be adopted. We want chiefly to learn economy in the skilful application of labor to land, in order to render every acre most productive; for we must still bear in mind, that with us labor forms the principal item of capital expended in our farming operations, and that we are limited in our supply of it.

Again—might not a competition of a higher order among us be excited, by inviting each farmer who wished to compete with his neighbor in good husbandry, to keep for exhibition a general account current with his farm, and then award premiums in proportion to his profits on the capital employed, and his skill in managing it? This plan would seem difficult at first view, but forms might be drawn and blanks furnished by the society to its members, so plain and simple that every man of common capacity might soon learn to keep his accounts correctly. This would tend directly to the practice I have before recommended: it would enable us to take more correct and comprehensive views of our own operations, and shew in what respects our efforts were well directed: it would exhibit to us the amount of our farming concerns, and prove to us whether we were applying our labor to the best advantage, and rendering our capital productive: it would, in fact, render each man's grounds a pattern farm for his improvement, as it would not only show him what was most profitable, but would record the facts for his future use; and thus much valuable information, which is now daily acquired, and gradually lost for the want of some place in which to treasure it up, would be preserved, and the *farm book*, if fairly kept, would soon become an interesting repository of valuable knowledge.

To conclude—let us never deceive ourselves with the expectation of sudden or extravagant gain. In every course of life, but more especially in farming, such hopes are entirely fallacious. Every thing depends on patient industry, properly directed, and a well regulated economy in the use of means. It is an error to suppose that this country is in want of valuable staples for market, in order to render it prosperous, although I am aware that a different opinion has prevailed. The difficulty lies, not in want of subjects of profit, but of skill in selecting and improving them.

"Knowledge is power."—On looking around us, we see that each farmer who improves the advantages of his situation with a moderate degree of skill, industry and economy, lives comfortably, and renders his farm profitable; while his neighbor, who may be equally industrious and economical in his style of living, but wants skill to direct his efforts to advantage, is continually toiling on from year to year in difficulties, and left to complain that the country is going to ruin for the want of something that can be raised worth carrying to market.

General prosperity is composed of individual successes, and where every farmer has it in his power to succeed, we must conclude the country is prosperous, or that causes operate of which we are not aware. May not these causes be traced to other sources than bad farming, to wit: to *bad living*—to habits of indulgence and ease, of waste and general extravagance?

It may be confidently asserted, that there is

not throughout the known world, a country where so great profusion reigns among all classes of society, as our own. Half the waste and expense in foreign luxuries in which we indulge, would impoverish the finest country in Europe; and while we retain these habits, we may ever expect to hear the cry of poverty through the land, though every vegetable production of the universe were flourishing around us, or the wealth of India were devoted to their culture.

Let us cease then to look abroad for sources of sudden wealth—Let each of us attend to his farm understandingly—Let him know his own plan and pursue it steadily—Let him do his work well and in season—See that all is in order, and fit for what it is designed—Contribute cheerfully to objects of usefulness and public improvement, regarding with anxious care the interests of his church and schools—Let him discountenance idle and vicious habits, and promote good conduct and vital piety in the circle around him, by his own example—Let him, in short, strive earnestly to discharge his duty to himself, his neighbor, and his God, and he cannot fail of success; but with an approving conscience, and the smiles of heaven, may justly claim to himself the enviable rank of an honest, intelligent, and independent *American Farmer*.

From the Old Colony Memorial.

I observe in your paper of the 30th November, under the head of agricultural economy, an account of the clearing an acre of swamp, which was covered with stumps and roots, and which was with the hoe, entirely subdued by the labor of one man in eighteen days, and an half!

It is understood also that the land which produced the hay, for which the premium was bestowed by the Plymouth County Agricultural Society, was two years before, in the state of nature, a swamp, covered with alders and whortleberry bushes!

It is gratifying to observe the attention of the husbandman turned to this object; as this species of land affords the best resource for grass of any in the country, and has been heretofore too much neglected, from an ignorance of its value, or an imaginary difficulty, or overrated expense of labor, in reclaiming it.

There is in every town, large tracts of this description of land (viz. swamp, bog, or morass) perhaps on every farm more or less, perfectly waste, and which if reclaimed and cleared, is capable of becoming the most productive, and permanently valuable, for mowing or for grass of any in this part of the country, it is imagined that expediency, if not necessity calls for more attention to this object of improvement.

The climate of our country, and consequently the seasons, have undergone a great change even within the memory of many now living, and a consequent change in the attention of the farmer has become necessary, to obtain the object of his supply. I do not allude to the drought of the last season; nor to any occasional drought to which we have always been more or less subject—but it is notorious the climate has become more arid, there is less rain, and less snow; many of the ponds are nearly dry—some quite, where there were formerly seven or eight feet of water—the springs are uniformly lower—the swamps not so much overflowed. This is by some, supposed to be the natural consequence of the clearing off the forests, and laying the

face of the earth more open to the evaporation of the sun and wind—whatever may be the cause, it is no part of my present object to account for it; I will leave that to the philosopher.—Assuming such to be the fact, my object is to invite the farmer to turn his attention to such improvement of his means, as to secure himself and his country from part of the evil, which may otherwise ensue on the failure of crops; either from drought, or from the infinite variety of devouring reptiles: the security from both, is perhaps, to be sought for, with the most flattering prospect of success, by the recurrence to this species of land for improvement and cultivation; as the Grub, from which we have suffered so extensively, for the three last years, has never been observed to resort to those lands, which are sufficiently saturated with moisture.

It is an observation frequently made, that farmers are peculiarly wedded to their habits, are inordinately attached to their particular mode and process of cultivation, because they are derived from their ancestors, and are sanctioned by their experience—this is all natural—but farmers like other men, must change their habits with the change of circumstances, they are hawk eyed to see where there interest may be promoted, and if they are not much given to speculation and enterprise, when any improvement is introduced they are not slow to discern its advantage, and adopt it.

When the venerable Pilgrims, our fathers, first migrated to this country, they were a feeble band, and in slender circumstances; they had a wilderness before them, and wants and hunger pressing on their rear—they could not adopt the slender improvements in agriculture then known in the mother country—they could only avail themselves of the few plats of ground cleared by the natives to deposit their seed corn; when that was done, they necessarily cleared for their further improvement, that which was within their means, that which could be effected with the least possible labor, and would make them the most immediate return; this of course, was the upland, and those of the lightest consistence, as best calculated to furnish them with that necessary article (and of difficult acquisition) bread; this was necessarily their first object of pursuit; and this the foundation of that system of farming, which by a view of the present face of the country, will be judged to have been too literally followed by their successors, although relieved from that “imperious necessity,” whose iron grasp pressed so heavily upon their fathers. The circumstances of the Yeomanry of the country, are now easy and independent, and this is the day of improvement—their industry if excited to enterprise, under the wise and discreet patronage and encouragement of agricultural societies, is capable (if not of counteracting the seasons) of subduing nature, and making her tributary to their necessities, comforts and luxuries. It is with satisfaction I observe the Agricultural Society of this county, have wisely turned their attention to this neglected object of agriculture, and have offered their premium for the encouragement of those, who shall successfully reclaim a specified quantity of swamp or fresh meadow to English mowing—this is wise and discreet in them, and there are perhaps some whose circumstances and situation may enable them to avail themselves of the encouragement, and to their own exceeding

profit; but it is no part of my desire to excite a quixotic enterprise, even in this laudable pursuit—such an undertaking as may induce individual embarrassment—my wish is to route the general attention of all those who may have such waste lands near or on their homestead, and make it a sort of *common-place* object, where they may profitably employ themselves and their laborers, in their *broken hours or days*, when our objects are not imperative; and if this way they may reclaim forty rods in the year they will have added so much to their capital and will have placed it at compound interest.

I am aware that this county can never be distinguished as an agricultural county; if it ever arrives at distinction, it must be as a manufacturing district, for which its numerous streams offer so many facilities, but in this view its agriculture is of importance as the hand-maid, or even the pillar on which manufactures must be supported—and manufactures also when more largely established and endowed, will react on the improvement of agriculture; for the most have observed but very little, who have not remarked the bold and liberal spirit of improvement, which persons bred to trade or manufactures have often exerted on the improvement and embellishment of their land estates that they usually come to them with a more abundant command of ready money, than most farmers possess; and that they have generally by long habits of calculation, better and more enlarged ideas of the propriety of expending, in order to acquire; and by these means numerous, beautiful and flourishing villages have already been erected in the wilderness, and some where nothing before but the footsteps of the savage, or the prowling wolf were known to roam, and how has agriculture had reason to bless that happy alliance—and how miserable must the policy of that government be which would disjoin the agricultural, manufacturing and commercial interests, or make one tributary or subservient to the other. YEOMAN.

THE FARMER.

BOSTON:—SATURDAY, JAN. 13, 1823.

IMPROVEMENTS IN HUSBANDRY, AND NEW IMPLEMENTS OF AGRICULTURE.

The excellent Address of Mr. Garnett, delivered before the Fredericksburgh Agricultural Society, in Virginia, and published in our paper, No. 21, page 164, contains some humorous and happy illustrations of the slow march of improvements in husbandry, and the pertinacity with which some farmers adhere to old customs, although very absurd and inconvenient. It is owing, principally, to this obstinate predilection to established usages, that agriculture has, till within half a century past, been so much in the rear of some other less useful arts, and exhibited but feeble traces of that march of mind, which has been evinced by advances in chemistry, botany, mineralogy, and the whole circle of those sciences, which give to civilized man his best founded claims to superiority over the undisciplined and unlettered savage. The prejudice of the Virginia cultivators in favor of their unwieldy, inconvenient, old-fashioned ploughs, was ridiculous enough, and the folly of that foolishness, which induced them to persevere in the path of error, after experiment, the unerring test of utility, had pointed out a better way, may as well be laughed at as gravely rebuked.

ut this reluctance to adopt evident improvements
thing new in the history of man, and has ever been
iculary prominent in the annals of agriculture.—
have no doubt but even our New England farmers
e wrought with poor tools, when better might be
, and which would, at least, "in the long run,"
e cheaper than those which they ought to super-

Ve would, not, however, censure our cultivators for
blindly and precipitately adopting every practice
ch is stated to be an improvement. But as res-
ts tools of every day employment, when many times
e inspection, and almost always a short trial would
e some to be more useful than others, to adhere to
e which are least commodious, and to refuse to
e even an experiment with a new one, merely be-
se "father didn't do so," or "neighbor Blueskin
s it won't do," is a kind of pertinacity which de-
es to make its possessor a mark for all the arrows
ch the quiver of wit can furnish.

Ve believe, however, that many farmers of Great
ain are more obstinately attached to silly, expen-
sive, and unhandy customs, than any of our yankee
tivators. And if Brother Jonathan is sometimes a
e backward about embracing new and useful im-
vements, John Bull is often a very paragon of awk-
ward obstinacy. An English author (Lawrence, on
at Cattle,) mentions a report of "a gentleman who
ks eight large oxen on a plough, whatever the soil,
ng or weak, fresh or fallow;" and says he has wit-
sed "in an English district, where as good laboring
n are bred as we have in England, farmers often
e ten oxen together to one plough, and stand to it
ly, as a matter of necessity; which I should by no
means controvert were the exertions of the brutes equal
tiffness and energy to the prejudiced arguments of
ir masters."

It is likewise observed by Sir John Sinclair, that
e introduction of new implements into a district, is
n a matter of the greatest difficulty, owing to the
orance, the prejudices, and the obstinacy of farm-
rants and laborers. Many farmers, therefore, very
urdly retain their old implements, though convinced
heir inferiority, rather than sour the temper of their
rers, by attempting to introduce new ones. In
ay cases, however, they have succeeded by atten-
i, by perseverance, and by rewarding their servants
o have been induced to give the new machines a
trial."

The yeomen of New England are too enlightened to
under the dominion of such unprofitable prejudices.
ey will assent to our assertion, when we say that a
n who works with a poor instrument, when a better
s conveniently be had, is himself

But little better than "a fool,
Which knaves do work with, call'd a fool."

We are therefore happy to perceive that a Shop or
arehouse, for the sale of Agricultural Implements, is
ablished by Mr. J. R. Newell, No. 20, Merchant's
w, Boston, where Ploughs, Cultivators, Forks, Hoes,
, &c. &c. of the latest and most improved construc-
as, are to be sold, at a cheap rate, and of an excel-
t quality.

NEW SYSTEM OF SHOEING HORSES.

In our paper of Nov. 30, page 142, we took notice
a work entitled Goodwin's "New System of Shoe-
ing Horses," &c. and beg leave once more to turn
e attention of such of our readers as are, or ex-
pect to be, benefited by the labors of that valuable and
ble animal the Horse, to this little treatise, which
ay be had at any of the principal bookstores in this
ty. If a horse has naturally all the good qualities

that ever belonged to his species—is fleet as the Bu-
cephalus of Alexander, strong as the largest and most
powerful English dray horse, and docile as a lap-dog,
still, if his feet are defective, he is good for nothing.
An attention, therefore, to the "Diseases of the Feet
connected with shoeing," (the principal object of this
treatise,) is of primary importance. Dr. Franklin,
somewhere, tells us of a horse's being badly shod,
which caused the loss of the horse, and the loss of the
horse occasioned the destruction of his rider; and this
last greatest of all disasters was the consequence of the
rider's not possessing such a treatise as we are recom-
mending, and paying a proper attention to its direc-
tions. Should any person hereafter, who has a dollar
to spare for this work, refuse to purchase it, and thus
meet destruction in the way warned against by Dr.
Franklin, the verdict of the Coroner's Jury ought to be
felo de se; or in English, *this man's neck was broken in
consequence of his own carelessness*.

A plan for doubling our Subscription List.

We have thought of a scheme, which, if put in ex-
ecution, will be sure to benefit the public, as well as
prove serviceable to our establishment. This is, sim-
ply, for each of our subscribers to procure us at least
one other subscriber; and we hereby authorize each
and every lady and gentleman, who takes the N. E.
Farmer, to become our agent for that purpose. Those
who do not like this project, will of course let it alone,
but we can assure them that our advice is dictated by
pure patriotism, with a slight tincture of regard to our
own interest.

FARMER SUMMARY OF NEWS.

In CONGRESS but little business capable of detail in
our paper has yet been completed. The MASSACHU-
SETTS LEGISLATURE is likewise principally engaged
in concerns of a local and private nature. In both
those bodies as much harmony and unanimity prevail
as is consistent with freedom of discussion, and that
amicable collision, which is necessary to elicit the
light of truth.

FOREIGN.—A late arrival at New York, has brought
London dates to December 5th, which are much more
interesting than usual. The Congress of Verona is
broken up, or rather split into several sections. That
part which is to regulate Spain, is to sit in Paris; the
portion which is to control Italy, is to hold its meetings
at Vienna; and the Emperor Alexander, wherever he
may be, is to take charge of the rest of Europe.

France seems to be determined to restore the old or-
der of things in Spain, either by force or menaces. Some
accounts say that a body of the French army of Obser-
vation has already penetrated into Spain, others that
Spain is to have a little time to accede to the decisions
of the Congress, and to ward off the meditated blow
by submission. The Cortes, on the contrary, shew no
disposition to submit to French dictation, and appear to
be determined to manage their own affairs in their own
way. If war does not follow, one or the other party
must *haul in their horns*, and if it should take place, it
is impossible to foresee how many nations will become
parties. Great Britain seems determined on neutrality.
Probably the government tends one way, and the peo-
ple the other, and in this way John Bull seems suspend-
ed on the horns of a dilemma, and will, it is to be hoped,
be kept out of mischief.

On the 20th of Oct. the Turkish and Greek fleets
met, and a combat took place which lasted six hours,
and was obstinately contested. A part of the Greek
fleet was kept out of action by adverse winds and cur-
rents, but they succeeded in repulsing their opponents.
The Greeks fought bravely, for they fought in presence
of their wives and children who covered the hills and
shore.

It is estimated that more than a million bushels of
bones, human and inhuman, were imported last year
from the Continent of Europe, into the port of Hull in
England. The neighborhood of Leipsic, Austerlitz and
Waterloo, and other places, where, during the late

bloody war, the principal battles were fought, has been
swept alike of the bones of the horse and his rider,
shipped to the port of Hull, and forwarded to the York-
shire bone grinders, who have erected steam engines,
with powerful machinery, for the purpose of reducing
them to a granular state. In this situation they are
sent, chiefly to Doncaster, one of the largest agricultur-
al markets in that part of the country, and sold to far-
mers to manure their lands. The oily substance gradu-
ally evolving as the bone calcines, it is said, makes a
more powerful and substantial manure than almost any
other substance. This is remarkably the case with
human bones. A dead soldier is thus made an article
of commerce; and it is possible that the Yorkshire far-
mers may thus be indebted to the bones of their chil-
dren for their daily bread.

There has lately occurred a terrible hurricane, ac-
companied with an inundation, in Genoa. Bridges,
trees, and houses, were swept away by torrents descend-
ing from the mountains. The Lazaretto, a fine and
massy building, containing a large quantity of merchan-
dize, was borne away by the violence of the waters.—
The environs of the city presented an immense lake of
muddy water, with here and there tops of trees and the
second stories of houses, rising above the element.

The town of Port-au-Prince, St. Domingo, was nearly
destroyed by fire, which broke out on the night of the
16th ult. and was not got under until the 19th.

A Frenchman named Jacques, who is termed the
French Giant, is exhibiting himself in England.—He
is seven feet four inches in height, (and is yet a youth,)
is well formed, and of amazing muscular powers.

DOMESTIC.—The whole number of passengers ar-
riving from foreign ports, in the ports of the U. States,
from the 1st of Oct. 1821, to the 30th Sept. 1822, is
reported by the Secretary of State to have been 4482;
5241 males, and 1136 females—the sex of the remain-
der not being reported to the Department of State.

Edward P. Perley, who kept a store in Market St.
was arraigned before the Police Court last Saturday,
charged with having purloined goods from the store of
Messrs. Draper & Stone. He was ordered to recognize
in the sum of \$4000, with sureties, for his appearance
at the Municipal Court.

Gen. Chandler has been re-elected to the Senate of
the United States, for the State of Maine, for six years
from the 4th of March next.

Counterfeit \$5 and \$2 bills of the Concord, N. H.
bank, are in circulation. The paper is of a lighter
and more spongy kind, than the genuine. None but
the above description, are known to be counterfeited.

At Richmond, Va. on the first of Jan. nearly all the
printing materials in the office of a paper called the
Hornet, were destroyed by a mob of 15 or 20 persons
with blackened faces.

The Legislature of N. Carolina has abolished impris-
onment for debts contracted after the 1st of May next.

The U. S. NAVY list shews that one hundred offi-
cers, or one eighth of the whole number, have resigned
or died during the past year.

Flour 110 dollars per barrel.—The Baltimore A-
merican of Friday says, "Late accounts from the Pa-
cific, received in this city last evening, via Panama and
Chagres, announce that flour had risen to one hundred
and ten dollars per barrel at Guayaquil."

Fashionable Amusement.—Among the holiday sports
of the season, a writer in the Freeman's Journal de-
scribes a Bull-bait, witnessed by him at Rose Hill, near
Philadelphia, on Tuesday last, in colors calculated to
excite the attention of the magistrates of a country
less distinguished for humanity than the "city of brotherly
love."—N. Y. Statesman.

Several families have recently sailed from N. York
for St. Augustine, E. Florida, to settle upon the Alachua
tract, so called, which is represented to be the rich-
est tract in Florida, producing sugar cane and rice in
abundance. These lands are valued from one to two
dollars per acre.

Purcell, the free man of color, who gave information
of the late intended insurrection in the state of South
Carolina, has been handsomely rewarded by the legis-
lature of that state. They have allowed him \$100 a
year for life, and exempt him and his family from taxa-
tion.

From the New-Brunswick Advertiser.

A SONG,

Written by John J. Barker of this city, and sung at the Spring meeting of the Agricultural Society of New-Brunswick, on the 24th April, 1821.

A Farmer's life's the life for me,
I own I love it dearly;
And ev'ry season, full of glee,
I take its labor cheerly—

To plough or sow,
To reap or mow;
Or in the barn to thresh, Sir,

All's one to me,
I plainly see
'Twill bring me health and cash, Sir

To customers the merchant shows
His best broad-cloths and satin;
In hopes to sell a suit of clothes—
But lo! they beg a pattern—

Which pinn'd on sleeve,
They take their leave—
"Perhaps they'll buy—since low 'tis"—
And if they do,
The sale he'll rue,
When paid, Sir, with a "notice."

The Priest has plagues, as undesir'd,
When flatter'd with a call, Sir,
For tho' he preach like one inspir'd,
He cannot please 'em all, Sir.

Some wanting grace,
Languish in his face,
While solemnly he's prosing;
Some sneeze or cough,
Some shuffle off—
And some are even dozing.

The lawyer leads a harass'd life,
Much like a hunted Otter,
And, 'twixt his own and others' strife,
He's always in hot water.

For foe or friend
A cause defend,
However wrong, must he, Sir,
In reason spite
Maintain 'tis right—
And dearly earn his fee, Sir.

The Doctor's styl'd a gentleman,
But this I hold but humming;
For like a tavern waiting man,
To ev'ry call he's "coming"—
Now here, now there,
Must he repair,
Or starve, Sir, by denying;
Like death himself,
Unhappy elf,
He lives by other's dying.

The soldier deck'd in golden lace,
Looks wond'rous fine, I own, Sir,
But still I envy not his place—
When batter'd to the bone, Sir.

To knock my head
Against cold lead,
I never had a notion;
If that's the way
To rank, I say—
Excuse me the promotion.

The sailor lives but in a jail,
With all the risk besides, Sir,
Of pillage, founder, and of gale—
This cannot be deny'd, Sir.

While I so snug
Enjoy my mug,
Or kiss my wife and so forth—
When rain and storm
The nights deform,
His duty bids him go forth.

A farmer's life, then let me live,
Obtaining, while I lead it,
Enough for self, and some to give
To such poor souls as need it.

I'll drain and fence,
Nor grudge expense
To give my land good dressing;
I'll plough and sow,
Or drill in row,
And hope from Heav'n a blessing.

AGRICULTURE.

From the New Hampshire Sentinel.

CHESHIRE AGRICULTURAL SOCIETY.

At a meeting of the Cheshire Agricultural Society at Col. Drew's in Walpole, on the first day of January instant, the following premiums upon Agricultural products were awarded by the executive committee.

To Bela Chase, of Cornish, for the best crop of wheat on old ground, being 44 bushels on one acre and 22 rods of land, \$4.00

By the statement of Mr. Chase, accompanying his application, it appears that this piece of land is a part of a loamy pine plain. That previous to 1820 it had been for some years alternately in tillage and mowing. In 1820 and 21 was planted with corn, and in the latter year highly manured, quantity not stated. In the spring of 1821 the land was first ploughed deep, the manure spread and covered by a shallow ploughing, planted, and the corn carried off the ground the first week in September. The produce as estimated by measuring in the ear, and shelling one basket, was 102 bushels. The land was again ploughed deep immediately after harvesting the corn and sowed, 5 pecks on the piece, harrowed once and bushed—produce as above.

To Samuel Grant, of Walpole, the second premium on wheat, \$2.00

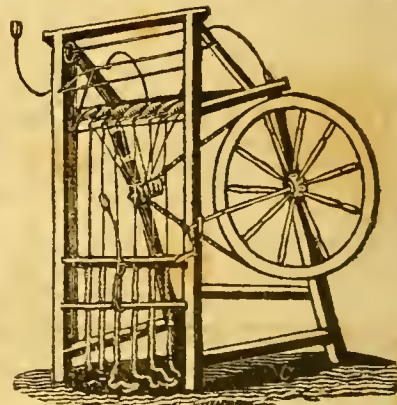
Mr. Grant's field contained 2 acres 3-4 and 14 1-2 rods. The produce 94 bushels. The wheat, a specimen of which was exhibited to the committee, of a superior quality; weighing 64 lbs. per bushel. The field in 1821 was tilled—a part of it sowed with peas and the remainder planted with corn. The peas were harvested about the first of August—a large crop of weeds then ploughed in and the ploughing repeated three times before the 20th Sept. From the part of the field planted, the corn was removed on the 15th Sept. and stooked up on grass land where it ripened well. The land was ploughed between that time and Sept. 20th, three times, at the last of which ploughings it received a dressing of chip manure. Sept. 20th, the whole piece harrowed and sowed with four and a half bushels. The seed was prepared by washing and mixing with each bushel two quarts of slacked lime. May following it was dressed with two bushels of plaster and one of slacked lime. Mr. Grant expresses the belief that the frequent ploughing and turning in of the weeds contributed very much to the increase of his crop.

To Samuel Jennison of Walpole, for the best crop of potatoes, a premium of \$4.00

The quantity of land, one acre, produce 43 bushels of the long red or Spanish potatoe. The land had laid in green sword mowing, 12 or 15 years. Ploughed again and harrowed in the Spring of 1822—manured with 30 loads of coarse manure spread. Again ploughed and harrowed—furrowed 3 1-2 feet distant one way—manured in the furrows with 11 loads of rotten manure—hills 1 foot and an half distant; hoed twice and harvested last of October. See whole, about one large potatoe to each hill.

SAMUEL FINDLEY, Chairman.
THOMAS M. EDWARDS, Secretary.

JANUARY.—Carefully watch cows, near time of their calving; see that they are not allowed to leap fences or ditches, or go on the ice; house such as have just calved; increase their feed; put ewes to rowen that are so to lamb, house your calves and colts, finish killing and curing pork, lay up your tools carefully that were used in fall work, finish your threshing, get home your wood, dress flax for your daughters to spin, and settle your accounts. *Agri. Almanac.*



BROWN'S PATENT VERTICAL FAMILY SPINNER.

FOR SALE, at the Agricultural Warehouse, Chambers No. 20, Merchant's Row, (opposite the East end of the Old Market)—a number of

Brown's Patent Family Wool Spinners, which are found on trial to be one of the most useful domestic implements that have ever been invented for that purpose, being of so simple and easy construction that a girl of the age of 15 can well do the work of persons in spinning, and so compact in its form as to require so much space as a common family spinning wheel. The advantage of this machine over and above the common mode of family spinning, is at once testified in a few minutes operation with the machine; it once discovers its immense saving of labor, its accuracy in spinning a good thread, and the quantity it produces. It requires no further examination to judge of its utility than to see it operate. It is afforded at a low price as to bring it in common use to every practical farmer, and is well calculated for the employment of the inmates of our common town's poor houses. Any number of Machines can be furnished at the shortest notice, and warranted. Jan. 11.

THOMAS W. SHEPARD,

RESPECTFULLY informs his friends and the public that he executes all kinds of

BOOK AND FINE JOB PRINTING, in the most fashionable manner, and on reasonable terms, at the Office of the NEW ENGLAND FARMER, ROGERS' BUILDING.....CONGRESS-ST.

NEW ENGLAND FARMER.

Published every Saturday, by THOMAS W. SHEPARD, Rogers' Building, Congress Street, Boston; at \$2.50 per ann. in advance, or \$3.00 at the close of the year.

VOL. I.

BOSTON, SATURDAY, JANUARY 25, 1823.

No. 26.

DISEASES OF CATTLE.

SELECTED AND COMPILED FROM THE BEST AUTHORS,
BY THE EDITOR.

Gripes, or Flatulent Colic.

This disease, in horned cattle, is generally the effect of costiveness, or a retention of food in the third stomach. Sometimes, however, it happens when the bowels are in a lax, or natural state. Cows that are fed upon grains are very liable to this complaint; such, also, as are kept upon dry food are often attacked by it. When colic takes place, independent of costiveness, it is generally occasioned by feeding greedily upon fresh succulent grass, or by drinking cold water when heated by exercise, and comes on rather suddenly; but when it is caused by costiveness, the attack is generally more gradual.

The symptoms are at first, an appearance of restlessness in the animal, often lying down, moaning, or striking against the belly with the hind feet or horns. The body is often swollen, which is most observable on the left side. The pulse is generally in its natural state. If proper remedies are not administered, the pain becomes more violent, and at length inflammation takes place, which is indicated by the pulse coming very quick, and the ears, horns and feet cold; when this happens the disorder most commonly terminates in death. When the colic appears to arise from costiveness, purging medicines are of course the essential remedy; but they should be combined with aromatics, or mulants, as in the following prescriptions; and if the animal is in good condition, or the outer surface of the eyelid is unusually red, it could be bled freely; but if the complaint is attended with looseness, or the bowels are in their natural lax state, particularly if the animal appears rather weak, and the inner surface of the eyelid pale, the following carminative drink should be given, and no blood taken away. When the purging drink is found necessary its operation may be promoted by clysters. It may not be unnecessary to observe that when the colic is caused by feeding greedily on grains, or any other kind of food, the cow must be fed cautiously for several days after, and take the carminative drink, hereafter mentioned, once or twice a day, in order to restore the tone or energy of the stomach. On the other hand, should the disease have been occasioned by costiveness, or feeding upon dry food, the state of the bowels must be attended to after the animal has been relieved by the operation of the purgative drink; as the tendency to costiveness will probably continue, unless it be removed by a change of food. When this cannot be done, some salt should be mixed with the food if the animal will eat it; if not he should be drenched with three or four ounces of salt dissolved in water daily; this will serve to open his bowels in a slight degree, and increase his appetite for water, with which he should be freely supplied.

Purging Drink.

Barbadoes aloes	$\frac{1}{2}$ oz.
Carbonate of potash, or common potash	3 dr.

Powdered ginger	$\frac{1}{2}$ oz.
Water	1 pt.
Oil of turpentine	1 oz.
Linseed oil	8 oz.

Mix for one dose.

When the above medicine cannot be procured in time, the following may be substituted for it.

Common salt	$\frac{1}{2}$ lb.
Sweet oil, linseed oil, or any kind of oil which is not very rancid, or even melted hog's lard	$\frac{1}{2}$ lb.
Flour of mustard	1 oz.
Water	1 qt.

To this a glass of spirit may be added.

Stomachic Drink.

Powdered ginger	$\frac{1}{2}$ oz.
Powdered gentian	1 oz.
Carbonate of ammonia [volatile salts]	2 dr.
Infusion of camomile flowers	1 pt.

Mix for one dose.

Carminative Drink.

Oil of turpentine	1 oz.
Tincture of opium	6 dr.
Spirit of nitrous ether	2 oz.
Water	1 pt.

Mix for one dose.

White's Treatise.

Indigestion, or loss of the Cud.

Mr. Lawrence says that in this disease, "the beast mourns, and has no appetite, or drops its food without attempting to swallow it. Probably from defective irritability in the fibres, or contracting muscles of the rumen or cud-bag, the animal is unable to throw up or ruminate, of course the bag remains loaded and obstructed. The intention is to remove the obstruction and re-invigorate the animal fibres. Let the animal fast some time, then give a warm bran, or pollard mash, with good hay and warm water with salt. This treatment alone may succeed with patience, even should the maw be obstructed by acorns or crab-apples. An aloes tincture made with brandy and ginger or capsicum [red pepper] might be of use in this case. After conquering the obstruction, bitter infusions made of camomile, hoarhound, oak bark, &c. in beer, may be required, as restoratives, although perhaps good dry nourishing feed will have an equally good effect."

It is remarked by Mr. White that "the earlier stages of this complaint are not marked by very striking symptoms. The animal has a dull, or languid appearance; and generally, a rough unhealthy coat and tight skin. The appetite is diminished, and at length he ceases to chew the cud. The eyes and mouth have generally a yellow appearance."

"To cure this disease, it should be attacked at an early period; for when the liver has become affected in a considerable degree, it terminates fatally. Should there be any appearance of costiveness, the following warm laxative is first to be given; more commonly, however, the bowels are in a loose state, and the dung has an unhealthy appearance; in this case, let

the tonic drench be given morning and evening, and let the animal be kept in a warm sheltered situation. It may be necessary to repeat, that this, like most other internal diseases of cattle, may generally be removed by timely attention; but in attempting a cure after they have existed some time, a great deal of unnecessary expense is often incurred.

Warm Laxative.

Barbadoes aloes	$\frac{1}{2}$ oz.
Castile soap	6 dr.
Ginger	3 dr.
Cascarilla bark	2 dr.
Warm water	1 pt.

Mix.

After the operation of the laxative, the tonic drench may be given, should it be found necessary.

Tonic Drench.

Cascarilla bark & ginger, of each	2 dr.
Soda	2 dr.

To be given in a pint of ale, beer, or warm water.

Jaundice, or Yellows.

This disease may be known, principally, by yellowness of the eyes and mouth; a dull or languid appearance, and debility; a loss of appetite too is a common symptom. It may be distinguished from the former disease by the costiveness, which uniformly attends it, and by the animal appearing to be in more pain. At the commencement of the disorder a cure may generally be accomplished, by giving the warm laxative, directed for the foregoing complaint, and repeating it after an interval of five or six days, giving, in the intermediate time, the following drink, every morning and evening.

Castile soap	$\frac{1}{2}$ oz.
Venice turpentine	$\frac{1}{2}$ oz.
Ginger	3 dr.
Powdered gentian root	1 oz.

Rub the soap and turpentine together, in a mortar, until they are incorporated; then add, gradually, a pint of water, and afterward the ginger and gentian.

In the more advanced stage of this disorder, the liver is generally so injured as to render a cure impossible.—*White's Treatise.*

Mr. Lawrence observes that "this disease in cattle originates in hepatic, or liver-obstruction from cold; however, always from obstruction, which is most effectually opened by mild mercurial purges, notwithstanding the beast may appear weak and hide bound. The yellow tinge in the eyes and mouth, and upon the urine, sufficiently indicate the disease. Take the patient to the house, the earlier the better, and if he remain weak after two or three days, give steel beer, milk warm, a pint twice a day for a week, and good keep. One gallon good beer, three or four ounces iron filings, infuse in a stone bottle corked up three or four days; shake daily. Hard labor during great heats was said by the old writers to produce the Gall or Overflow of the Gall, which often terminates in the Yellows."

(TO BE CONTINUED.)

From the American Farmer.

Communicated for publication in the *American Farmer*, by order of the United Agricultural Societies of Virginia.

On Fallowing for Wheat—on gathering and cleaning Clover Seed, &c. &c.

DEAR SIR,

I should have replied to your letter immediately on receipt of it, had not sickness prevented it. I am now better, and shall give such an answer to your inquiries as my experience and observation enable me to do, without promising you any thing, either new or important, on the subject.

Your first inquiry on the subject of land intended to be fallowed, is, "whether I think it necessary to introduce the scythe or the hoof previous to the first ploughing, or whether I do not think it practicable to obtain equally good crops, from land where the whole mass of vegetable matter has been turned under."

In answer to the first part of this inquiry, I will observe that it is not necessary to use the scythe, or to pasture the land previous to ploughing, provided impediments to good ploughing do not exist in the soil, such as stones, stumps, &c. and the mass of grass or other vegetable matter is not too rank for the plough to subvert or completely turn under. If it can be effectually buried by the plough, the more vegetable matter is ploughed in the better for the succeeding crop, and the more fertilizing to the soil. But when this plan is adopted, it is necessary to sow the wheat or rye upon a single ploughing, and harrow in the seed. The former system pursued throughout Pennsylvania and this Valley, is generally exploded. Instead of breaking the fallows early in the spring, stirring them once or twice during the summer, and again in the fall at seeding time, the more economical and better plan is adopted, of suffering the field to lie in grass during the summer, either for hay, pasture, or to be ploughed in, in toto, where the land was poor and required such aid. But in this case care is taken not to disturb the sod or vegetable mass deposited beneath the furrow. The ploughing is done in August or September, and after lying two, three or four weeks, to meliorate by exposure to the influence of rain and air, the seed is sown and harrowed in lengthwise; that is in the direction of the ploughing. This is done in order to prevent the harrows turning up the sod. The harrows to be large and weighty, with strong, sharp, iron teeth. Those I use are $4\frac{1}{2}$ feet square, with 24 teeth, 12 inches long, $1\frac{1}{4}$ inches square, and projecting below six inches. If a single harrowing does not reduce the surface to a good tilth, it may be harrowed again, and the second harrowing may cross the first, if it is found not to disturb the sod. The mass of vegetable matter now buried beneath the surface, and excluded from the influence of the air, will perish, and soon enter into the incipient state of fermentation, and afford both warmth and fertility to the roots of the grain.

This system of husbandry is applicable to such soils as are sufficiently loose and friable to crumble before the harrow, fifteen or twenty days after ploughing. It is not adapted to stumpy or stony land, or such as is so stiff or tenacious that it cannot be reduced by a single ploughing and harrowing. But as it is a pecu-

liar property of clover to meliorate the soil, it rarely happens that land clothed with a thick crop of it, two or three years, does not lose its accessive adhesiveness, and crumble before the plough. Few plants so easily enter into a state of decomposition, and disengage so much carbonic acid gas, as clover; but as all plants or grasses do, in a greater or less degree, they must all contribute to the fertility of the soil, if ploughed in. Some of our perennials are subdued with difficulty, and decompose slowly, and none more so than the blue grass. It is necessary that this grass should be *completely turned under*, and not again disturbed by the plough, if intended to be sown in wheat, unless the first ploughing had been done during the winter. In that case, stirring the land in the spring, and again in the summer, would be advisable. The amount then, of what I have said on this subject, is, that the more vegetable matter is *turned under the furrow*, the better; but that it is absolutely requisite that it should be completely buried, especially blue grass, and not again brought to the surface by stirring with the plough or cross-harrowing. If the grass is too rank to be ploughed in, (even with the aid of a long chain attached to the beam, to prostrate it before the coulter) it will be better to use the scythe.—Clover may be mown in September, when brown, and reserved for feed. In this case it will be unnecessary to sow clover seed the succeeding spring.

Your next inquiry relates to gathering and preparing clover seed for market. The management of this requires a judicious attention to the order in which the clover is, when put into the barn or stacks, and the state of the weather when the seed is to be separated from the pug or chaff, which envelopes it. If the clover is mown, it should be quite brown (or black) before it is cut, and immediately raked into winnows or small heaps, and suffered to lie exposed to rain or dew, until the sap and juices of the plant have mostly evaporated. It must then, when in a dry state, be hauled into the barn or built into good ricks, and there remain until January or February, when the air is cold and in its driest state. The heads are then to be detached from the straw by threshing with flails, and using rakes. This is an expeditious part of the process, as the heads separate with great facility. These heads are then placed in a ring, on a good tight floor, and tread with horses until the whole mass is reduced to a fine powder, resembling scotch snuff.

If the seed is good and perfectly dry, and the weather in that state which would make tobacco crumble into powder, by handling it roughly, six horses may tread out ten bushels in a day;—but if the weather is humid or even giry, (as the tobacco planters term it) this quantity cannot be got out, with the same force of hands and two horses, in two days. Tobacco, in this case, affords an excellent hygrometer to ascertain the proper state of the air for this operation. To prevent the dust, which rises during the treading, becoming both offensive and injurious, it is proper to keep open the barn doors, and permit a free passage of air. Shovels must be kept employed to throw up the clover chaff, and confine it to the ring traversed by the horses.

The next operation is to pass it through a common wheat fan, turning it very slowly, and preserving the chaff which falls nearest to the

riddle, as that contains seed not yet detached from the pug. This may be trod a second time or sown in that state. What passes through the fan must now be riddled through a cockle riddle, and lastly through a clover riddle, (easily obtained in Baltimore or Philadelphia) which will permit the seed, and that only, to pass through. This last operation will generate some dust, which (if the seed is for market) may be thrown off by passing it once more through the fan.

But if you use a machine for collecting the clover heads, suffer them to lie in heaps, formed like a hay cock, two or three weeks. During this time they will undergo a slight degree of fermentation and heat, (of course,) which, after getting thoroughly dry, will greatly facilitate the operation of treading out the seed.—Let this be done, as in the other case, in cold dry weather.

I have now, Sir, treated the subject of your request pretty diffusely, as it was your wish that I should be minute; and if any information is communicated, from which you can derive instruction or advantage, it will afford me pleasure to have contributed thereto.

I am, Sir, with respect,

Your very humble servant,

R. P. BARTON

GEORGE E. HARRISON, Brandon.

Springdale, July 22d, 1820.

From the American Farmer.

Laticaudæ or *Tunisian Broad Tail Sheep*, are emphatically the Farmers' Sheep.

Belmont, near Philad. Jan. 5th, 1823.

DEAR SIR,

I was mortified to perceive in a late "*American Farmer*," that you had been unsuccessful in your pair of *Tunis Sheep*; which had neither answered your expectations as to their capacity to pro-create, nor in the quality of the wool.—These forbidding defects, especially the former may tend to discourage our farmers in their endeavours to obtain and multiply this valuable race. Mr. Jefferson's account of his sheep would corroborate the idea that your sheep were not singular. I should be sorry, indeed that such opinions should prevail generally; although I cannot entertain any doubts of the facts you state, I must confidently repeat my former assertions, as to the generative and all other faculties of this race of the *Laticaudæ*, from my experience of, and personal attention to them, for a period of fourteen years. I never had, or heard of, a similar failure in any of the sheep, whereof I have given an account in our second volume of *Mémoires*. In my early life, I had a fine flock of English and other sheep—finer animals of the kind, I have never since seen. I spared no care or expense in relation to them; and was then well acquainted with the qualities and modes of treatment of these valuable parts of our farm stock. I paid, at one time, a sum for four South-Dowds, which, although trifling, compared with modern prices, was accounted a most extravagant expenditure. I mention this circumstance, merely to shew my early and long acquaintance with the subject. I must confirm, without hesitation, all I have said, both as to the qualities of the *Tunis Sheep*, and the superiority of the wool. Many of my sheep bore fleeces not only far more abundant, but incomparably

more valuable than those of the best common sheep. Some of the fleeces would bear two, and some three cuts in the length of the wool. That next the pelt was *furry* and soft; so that I have had gloves and stockings made of it, equal to fleecy hosiery. I have had better cloth made of this wool, when judiciously selected, than I could obtain from that of common sheep, by many degrees. *Merinos* were then unknown. As to their prolific capacities, no doubt can be entertained, *provided* the right kind be procured. In this I may have been peculiarly lucky; yet I am satisfied that enough of the same class can be obtained, by careful and intelligent persons.—Where are there any other breeders which could produce a lamb at twice the age of those here? My *Selima* yeanned a healthy lamb in her sixteenth year. All of the race may not do this—but all I have known retained fecundity much longer than any other race of sheep.—Their freedom from all diseases incident to other sheep, may have assisted this natural perfection. They yeanned with much more ease, and few if any casualties occurred in lambing.—I have, now, none of this breed I can recommend.

Your pair may not be prolific, yet may be of good kind, except as to the wool. How many pair of comely and promising Bipeds do we see, without progeny? Were we to generalize such instances, we should tremble under the apprehension that the human race would cease to *increase and multiply, and replenish the earth.* *Malthus'* alarms would then be nugatory indeed.

In my account of the Tunis sheep, vol. 2d, page 221, I relate the difficulty of a Tup of the common kind, coupling with a Tunis Ewe. But no such difficulty is experienced either with a common ewe, or with a female *Laticauda*. Nature is too wisely directed, to permit any impediments to their intercourse. I would not be understood to say, that the Tunis fleece is comparable to that of really fine woolled sheep. But its abundance, its not being deciduous, and its applicability to all common uses, for which fine wool is unfit, far overbalance its inferiority in his regard, and entitle this singular animal, emphatically; its superior carcass, too, considered; to the appellation of the *Farmers' Sheep*.

In some instances of apparent incapacity, I have succeeded by changing the male, or the female, as the case required. This I have practised with cattle, as well as sheep.

I have been, at several periods of my life, a breeder of sheep and cattle, and have had as fine animals as most I now see. The English breeds were then not so highly improved, as they are now esteemed to be. We procured our breeders chiefly from Holland, the low countries of Europe and Germany. Save that the *Alderney* race were always in high estimation. I had them, during twenty years, in great perfection. I never found much certainty in breeding great *milkers*, even from the best parentage; though often I have had success. My farms have been chiefly devoted to large dairies, during more than forty years past.

My days of agricultural activity have passed away, and I can now only enjoy recollections; and also the gratification of seeing my early endeavors now far exceeded. I rejoice to perceive the spirit for improving our stock, so generally and meritoriously diffused; and am significantly delighted by its prevailing where it was most required.

I, at one time, was seized with a zeal for breeding of *Horses*. In 1777, when the British took possession of our city and its environs, I had a number of high blooded young Colts, which I failed in having driven off from one of my farms. Ten or eleven of them were shot down by the Hessian or Yager banditti, for their skins. This was a damper to my equestrian propensities. When I returned to my domicile, I found my farm near the city, desolated and temporarily ruined—houses and farm buildings all burnt; and all enclosures and much forest timber taken away. Yet the wanton destruction of the young horses, and the barbarian and merely mischievous prostration of an extensive and well selected collection of fine, young and thriving fruit trees, mortified me more than the more important deprivations. Added to weightier excitements to avenge my *rebellious* exertions, an illiberal officer of a British picket, was stung by an imprudently smart girl, who remained with her widowed mother in the farm house. He sarcastically told her, that "*Washington* had been a low mechanic."—She replied that she had never heard that part of his history—but *their* General, *Howe*, was assuredly one—he was a *Whig*-maker. The house was burned in a night or two after.

But, as a mark of *good breeding*, I will close my prosing letter, which I began only to rescue my favorite Tunisiens from unmerited imputations. My subject is, however, not a *barren* one. You will, therefore excuse my prolific prolixity, and permit me to offer you sincere assurances of my best regards.

Your's, very truly,

RICHARD PETERS.

J. S. SKINNER, Esq.

From the Manufacturers' (Providence) Journal.

LACE LOOM.

We learn with pleasure, that the LACE LOOM, the construction of which was commenced about two years ago, on account of Messrs. Walker & Bestwick, of Medway, Mass. has been at last completed, at an expense of more than \$2000. The width of this machine, within the shuttles, is 56 inches. The shuttles are 1230 in number, and all play at one time, abreast of each other, with the same number of warp-threads. The warp threads are prepared on 26 bobbins, to which the machinery gives two motions, one a vertical rotary, to unwind the warp—the other a horizontal rotary, to turn the bobbin endwise; so that the warp runs two ways at once. The frame receives 26 breadths of lace at once—each having a selvage, and being held to the breadth on each side by a single thread, drawn through the adjoining meshes, as the work proceeds. When the piece is finished, these single threads are withdrawn, and the lace is divided into the requisite number of pieces.

The machine has three treadles and four handles, and is moved by the labor of one man. It occupies about as much space as a common Scotch Loom. It is so complicated that its proprietors think no intelligible draft can be made of it.

A piece of lace 23 yards long and 56 inches wide, from this loom, weighs twenty-two ounces and an half. This thread is No. 180. In constant operation, the machine would employ about sixty persons, mostly females, to prepare the lace for the market.

Any persons desirous of examining the loom, may see it, by calling on the proprietors, or on John Bestwick, the weaver, Medway, Mass.—Lace manufactured by it, is for sale in Providence, by Messrs. Watson and Rathbone.

THE ART OF BOWING.

In all classes and professions there is something peculiar in the method of bowing. Who that has seen much of the lawyers but will acknowledge that he throws into his obeisance a considerable share of that gravity arising from the awful honors of the wig and the gown? But altogether, the bow of law is not greatly to be admired—it seems to be a compound of the lessons of the dancing master, and that sagacious sort of nod which is acquired by long practice in the courts of law, and which generally accompanies any particular display of the cunning advocacy. Whoever has been in the court of justice must have seen the senseless nodding of some bustling advocate while the judge was charging the jury—taking hold of any circumstance favorable to his client, as it dropped from the bench, and then, with infinite importance, shaking his head to the twelve men in the box, as much as to say, 'mark that!'—Now this is one of the worst uses to which such a head can be applied.

The bow of the courtier has too much of the drawing room about it, and looks too cold and formal. The English, in general, cannot be respectful without making the act of obeisance too long; the French combine brilliancy with grace, much better, are super-eminent with that kind of bend which combines condescension with self-importance.

The medical professions are notorious for the peculiar nature of their bows—they are generally accompanied with a turning up their eyes, and look which says, 'you are in a sad way, madam, but, no doubt, we shall soon set you right again.' Doctors always speak in the plural, and like authors, cannot do without the editorial royalism. I am not much in love with the physical bow; it smells as decoction of 'I'm glad to find you poorly, but would not have you worse,' and a few simples not worth mentioning.

Every body is acquainted with the bow of the shop keeper—It is good enough in its way, and not open to many objections, because it professes no more than it means—'always happy to serve a customer.'

The theological bow is ever best on Sunday, and nearer the church yard the better. I was never more impressed with the importance of this bow than when lately in a country church. According to the good old fashion which prevails beyond sixty miles from town, we were all in our pews before the minister arrived. The dignity of his appearance, and the consequential, although at the same time, parental expression that beamed from a rubicund, but intelligent countenance, created an involuntary sensation of respect. As he walked up the middle of the aisle, the congregation rose and welcomed him, the return which he made right and left, was in the best style of clerical bowing.

But the most distinguished on the list of bows is that of the military profession. It is so well known and so fully admired—by the younger part of your fair readers in particular—that any illustration would be superfluous.

FACTS AND OBSERVATIONS RELATING TO
AGRICULTURE & DOMESTIC ECONOMY.

FOR THE NEW ENGLAND FARMER.

ON NEAT CATTLE.

In early ages neat cattle, together with sheep and goats, formed almost the only property of men, who were reputed to be wealthy. Thus Abram was said to be "very rich in cattle;" the wealth of Lot consisted of "flocks and herds and tents." Of Nabal it was said "the man was very great, and he had three thousand sheep, and a thousand goats." Cattle became of somewhat less comparative consequence as society advanced in civilization; still there is nothing over which the knowledge, constituting power, has given man dominion of more importance than neat cattle, unless, perhaps, it be iron.

It is probable that cattle, and indeed all domestic animals, were originally existing in a wild state, and some are still found in a state of nature in different countries.

A kind of cattle, called by authors the *Urus*, or wild bull, was formerly a native of Great Britain and Ireland, as is proved by the horns of this animal, which have been found in the mosses and bogs of those countries. These horns are of great magnitude; and their size indicate that they belonged to the largest animal, of the ox kind, that ever was found in Europe. The breed has been extinct in Great Britain and Ireland, from time immemorial; but still exists in the Polish province of Lithuania. It is described as having in general a curled shaggy coat, especially on the forehead; the hair constantly long on the fore quarters, neck and forehead, and depending from the chin; the neck elevated, thick and short, with the tail long, the eyes red and fiery; the horns thick and short. It grows to a large size, the female being larger than the largest bull of common breeds.

The *Bison* (*Bos Americanus*) is a large species of ox, with round and distant horns, which point outward, a long and woolly mane, and a large and fleshy protuberance on the shoulders.

These animals are hunted on the banks of the Mississippi and its tributary streams. Their flesh is used as food, and the fatty protuberance, in some large cattle, weighs forty or fifty pounds, and is esteemed a great delicacy. When the animals are in full flesh, they are said to yield, sometimes, as much as 150 pounds of tallow.

The largest breed of cattle hitherto discovered is found in the interior parts of India, and is there called *Arnee*. Dr. Anderson gives the following particulars respecting this prodigious quadruped.

"About the year 1790 or 1791, the *Hawsbury East Indian*, on her voyage outward, while she was going up the river Ganges, and at the distance of about fifty miles below Calcutta, fell in with a bullock of this species floating in the river, and still alive. A boat was immediately hoisted out, which went in chase of this game: a noose was soon thrown across the horns; and it was dragged to the ship's side, hoisted on board, killed, cut up, and soon after dressed for the use of the ship's company, who found it a most delicious meal; being the first fresh meat that they had tasted for many months. They all thought it a very large sized ox, and were the more surprised at this particular when it was discovered to be only two years old.—When cut up, it was found to weigh three hundred and sixty pounds a quarter, making one

thousand four hundred and forty pounds of beef in the whole carcase. As this animal must necessarily be supposed to be lean at the time, for it must have floated, in all probability, many hundred miles down the river (none of this breed being found lower than about Plassy,) and must therefore have fallen off in flesh very much, we cannot compute that a full sized bullock of that breed, when thoroughly fattened, could have been less than three times that weight; so that the four quarters alone would have amounted to two tons; an enormous size for an animal of that kind."

In a work by Mr. Kerr, an English author, on the Animal Kingdom, this kind of ox is said to have been met with by a British officer, in the woods above Bengal; and to have been fourteen feet high, measuring from the hoofs to the top of the horns. It partakes of the form of the horse, the bull and the deer; and is represented as a bold and daring animal. It is said to have upright lunated horns, flat and wrinkled on their surface. It is of a black color, quite smooth, with no bunch or protuberance like that of the bison. The horns of these animals are to be found in European museums and cabinets. Some of them are said to measure three feet and an half in length, and seven inches diameter, at the base.

The *Arnee* is, perhaps, the largest breed of cattle yet known. A very small breed is found in Africa, of which we have the following notice in Dr. Anderson's *Recreations*.

"The smallest breed of cattle, which has come to my knowledge, I never yet saw; but it has been so accurately described to me by several persons who have seen and handled it often, that there can be no doubt that such a breed of cattle does actually exist. The diminutive creature to which I allude, was a bull, which, with a cow of the same breed, was brought by way of natural curiosity from some part of the western coast of Africa, as my information goes, to be presented to the Duke of Northumberland; but, unfortunately, the cow received a hurt on board the vessel, which caused her death. The bull came safe, and lived about Sion house, near Brentford, above eight years, being quite domesticated, and as tame as a dog. Mr. Forsyth, of Kensington, who was then gardener to the duke, assures me, that he has measured him often after he had attained his fullest size, and when he was enormously fat; and that from the ground to the top of the shoulder was precisely two feet. He was a neat, well formed, and beautiful creature of his kind. His horns would seem to have been rather longer in proportion, and finer than those of the ordinary bulls in this country, being three or four inches long and very sharp. Like all other *pets*, he became very familiar in the family. He used to accompany the brewer to the cellar, and came at last to relish a horn of good ale very well; and, after having satisfied himself completely, he used to take his place before the hearth in the servants' hall, from which it was not an easy matter to dislodge him. He became at length a little mischievous and troublesome to strangers, who came about the house, by some of whom, it was supposed, he had been so severely beaten as to occasion his death."

The *musk bull*, which is found in the interior parts of North America, between Churchill and

Seal rivers is another remarkable variety of the *Bos*, or cattle kind. This species is thought to have arisen from an intercopulation of the bison with the common kind, such as our domestic cattle. It is said to be somewhat lower but more bulky than the deer, with short legs a small hump or bunch on the shoulders; the horns very large, weighing from forty to sixty pounds, bending downwards, and verging out the points to the length of two feet and upwards; the hair of a dusky red color, fine, and long enough to reach the ground. Beneath the hair the body is covered with an ash colored wool or fur, so very fine as to make stocking finer than silk. The tail is about three inches long, and covered with hair, of which the *Esquimaux* Indians make caps. They are very prolific and numerous, delight in rocky and hill countries, have considerable speed, and climb steep ascents with much agility. Their flesh is esteemed good and wholesome food, notwithstanding its flavor of musk.

The *sarluc*, or grunting ox of Tartary and Thibet is a singular animal of this species. It is found in Tartary and Thibet, where it is numbered among the domestic animals. It breeds with the bison, and is accounted an animal of the same species. It has, however, some peculiarities not found in any other creature of the *bos* kind. Instead of lowing like an ox, grunts like a hog. Its body is covered with very long hair, which hangs down below the knees, generally black, excepting the ridge of the back and the mane, which are white. The horns are short, upright, sharp and slender; the tail is formed like that of a horse, but white and bushy. The animal, in its wild state, is very unruly and dangerous, and accustomed to strike or but with its head. The tail, being mounted in silver, is used in India for the purpose of driving away flies, and serves various purposes of ornament in Thibet and China.

(TO BE CONTINUED.)

Cisterns for holding rain water.

"The deeper cisterns are, the better water will be kept. A cube is a good figure, but double cube is better, as it gains depth and consequently coolness. A cistern of 6 cubic feet holds 16 hogsheads of 100 gallons each. A double cube of 5 feet would hold above 18 run hogsheads of 100 gallons. The pit should be dug exactly by square and plumb. On the face of the pit, lay potter's clay, plasterwise, with trowel, coat over coat, (as it dries and cracks two or three inches in all. Against this firm even face of plaster, raise the brick or stone work. Bed the bottom, three or four inches thick, with strong clay, beat to a smooth even surface. Moisten the clay, and beat it with switches or small hoop poles, but with nothing heavy. On this clay-floor, lay a double bed of brick; and, on the margin of this, carry up the side walls half brick thick, laying them in terraces. Cover the cistern over, but leave room to fix a small pump, which must be two feet from the bottom; or a roller and bucket may be used to raise the water."—*Bordley's Essays*.

"The following valuable composition for a cement for water cisterns was given to the editor [of the *Domestic Encyclopedia*] and he has used it with success. He lined the well with brick, and left a space of about six inches be-

tween the bricks and the surrounding solid earth; this space he filled with mortar made with lime and pounded gravel. Equal parts of pounded brick, sand, and sifted stone lime, were well mixed and worked up with hot lime wash. This composition was spread on as hot as possible upon the inside of the well.

"To prevent the cooling of the cement too hastily, only a gallon must be made at a time.—A floor of the cement must be laid, and the top arched, leaving room for a pump to be put down."

"In many parts of Europe, rain water, saved in cisterns is the only water drank. Stolberg says, he drank some in the vicinity of Naples, near three years old, and found it excellent.—Mr. Brentham has lately taught us, that water may be kept during the above period perfectly sweet. On the flat coasts of the United States, these rain water cisterns ought to be generally built; for the water from the ground is very bad, and occasions many of the disorders, attributed to other causes."

It is said, by some, that if the bottom of cisterns be covered with sand, it will help to sweeten and preserve it.

"Anciently there were cisterns all over the country in Palestine. There were some likewise in cities and private houses. As the cities for the most part were built on mountains, and the rain fell regularly in Judea at two seasons of the year only, in spring and in autumn, people were obliged to keep water in cisterns in the country, for the use of their cattle; and in cities for the convenience of the inhabitants.—There are cisterns of very large dimensions to be seen at this day in Palestine, some of which are 150 paces long, and 54 wide."

There are many tracts of country within the limits of the United States, where the water is brackish, hard, and unwholesome; and where, of course, it would be well for the inhabitants to turn their attention to the construction of cisterns for holding rain water, which, if well preserved, is always pure and wholesome.

Implements of Husbandry.

"In purchasing implements of husbandry, the following rules are to be observed: 1. They should be simple in their construction, that their uses may be easily understood; and when necessary, that any common workman may be able to repair them. 2. The materials should be of a durable nature, that the labor may be less liable to interruption from their accidental failure. 3. Their form should be firm and compact, being so much subject to jolts and shaking. 4. In the larger machines, symmetry and lightness of shape ought to be particularly attended to: for a heavy carriage, like a great horse, is worn out by its own weight, more than by what it carries. 5. The wood should be cut up and placed in a position the best calculated to resist pressure; and mortises, so likely to weaken the wood, should, as much as possible, be avoided. 6. Their price should be such, that farmers in moderate circumstances can afford to buy them; yet, for a trifling difference, the judicious farmer will not purchase articles, either of a flimsy fabric, or a faulty form; and 7. Implements ought to be suited to the nature of the country, whether hilly or level, and more especially to the quality of the soil, since instruments calculated for light land, may not answer well in the heavy and adhesive."—*Code of Agriculture.*

From the Northern Intelligencer.

DISEASES OF SHEEP.

As far as I have learnt, it has been but a few years since worms have been discovered to breed in the heads of sheep, though it is probable they have, from time immemorial. They are not only found in the heads of sheep but also in the deer of our forest.

I am fully satisfied that these grubs do more injury to the sheep of our country, than all the diseases with which they are afflicted, and we may add to this, all that are killed by dogs and wolves. I therefore consider that a true history of these worms, their manner of breeding, together with the best method of destroying them, will be important to the public, especially at this time, when our farmers are so generally turning their attention to the breeding of sheep and supplying our infant manufactories with wool.

1st. These grubs proceed from a large bee, which lays its eggs in the nostrils of sheep, the last of August and first of September, where they soon hatch, so that by the 20th of the month, you may discover in the cavity between the nostrils and the wind pipe, from 25 to 100 small white grubs, with black heads and a black streak on the back, and in June a black streak crosswise. They continue in this place till July and August, at which time they get their growth, and are as large as a pipe stem, and near an inch long, with four large teeth as hard as bone. They then leave the sheep, and soon cast off their skin, when the bee appears, and is ready to lay a new parcel of eggs.

Symptoms.—The symptoms do not appear till towards spring, at which time they may be discovered, by sickly countenance and loss of flesh, notwithstanding all the grain and roots that can be given them; sometimes running at the nose, (though not always,) and snorting as if trying to blow something from the head. In some instances they will suddenly spring about in a wild frantic manner, and drop down dead. When this last symptom takes place, the grubs have made a lodgment in the brain. When they do not die in this manner, the grubs make the sheep so poor that their wool stops growing, becomes loose and much of it falls before shearing, many of the lambs are lost, and those that live are stunted by reason of the ewes being poor and sickly, and consequently give little or no milk; sometimes the sheep will linger along, pining away continually, and not die until June or July.

Remedy.—Take half a pound of good Scotch snuff, pour two quarts of boiling water on it, stir it and let it stand till cold, inject about a table spoonful of this liquid and sediment up each nostril of the sheep with a syringe. This must be repeated three or four times at proper intervals, from the middle of October to the first January; the grubs are then small and are much easier destroyed than afterwards, and have not injured the sheep as they will, if deferred until later. Half an ounce of assafoetida, pounded in a little water, and added to the snuff, will make it more effectual. The owner of the sheep need not be alarmed when the operation is performed, to see the sheep very drunk and apparently in the agonies of death, as they will in a few minutes recover. I never knew any bad effects to follow. Dry snuff may be blown

up the nose with a quill, and have a good effect; but it is a tedious dirty job. I have tried vinegar and blue die with but little or no success.

The reason why it is necessary to perform the operation so often is, that in the heads of the sheep, there are many cavities, and a little above each nostril there is a thin substance wound up into four folds, the grubs get into these cavities and folds, where it is not common to reach them the first operation, but by repeating it three or four times, at proper intervals, they will crawl out and be all destroyed. The reason of my directing the sediment of the snuff to be injected, together with the decoction, is, the sediment is retained in the head longer than the liquid, which makes it more certain to prove effectual.

The above knowledge I have obtained from dissecting the heads of a number of sheep, in different seasons of the year, and making experiments on some before they were killed, and in this way I could discover exactly the effect of the different medicines.

If the above directions are strictly attended to with all the sheep of our country, more than a million of dollars would be saved in the United States yearly; as all sheep (in this part of the world at least) are infected with these vermin; if any person doubts it, let them examine sheep from the 20th of September to the first of June.

I have found that our sheep are sometimes infected with the consumption on the lungs.—Bucks that have been put to too great a number of ewes, without being well fed with corn or beans, a little before tupping time, are most subject to this disorder.

Symptoms.—The eyes uncommonly bright and shining, water constantly running from them, and a gradual loss of flesh, they generally decline till the latter part of the winter and then die. I lost a buck last winter with the above symptoms, and on dissection, I found every part natural except the lights, which were nearly all ulcerated.

Remedy.—Tar, or tar water is good, but after the disorder is fully seated, it is doubtful whether any thing will be of service.

Foot rot.—This disorder is occasioned by sheep going in wet pastures. There is an issue in the division of each hoof, a little above the hoof, some have erroneously supposed it to be a living worm. When the sheep stand long in water, it affects the issue of their feet, so that an inflammation takes place, and if they are not removed to a dry pasture the feet will rot off.—Perhaps it would be better for those, whose land is low, to take out those issues, which may be easily done, by putting the finger the under side of the foot and pressing upward, then with a sharp penknife cut through the skin around the mouth of the issue, and with a strong pair of tweezers it may be pulled out, the place will then heal and the sheep will not be liable to the rot in the foot, though they should run in wet pastures. But when the pastures are dry, which on the whole, is best for sheep, I think it not proper to pull out the issue; for this reason, the God of nature has made them thus, and undoubtedly for the benefit of the sheep, as much as the issue in the legs of hogs.

JNO. T. ADDOMS.

Plattsburg, Oct. 10, 1822.

From the New York Statesman.

Extract of a letter from one of the Editors, now in Washington.

NATIONAL BURYING GROUND.

One of the first objects for which I inquire on entering a new place is the church yard, since independent of the pleasing melancholy derived from meditations "among the tombs," the selection of a site for a burying-ground, the manner of laying it out, the sculpture of the monuments, and the inscriptions they bear, furnish a pretty correct index to the intelligence and taste of the inhabitants. In the congregation of the dead, you may study and catch the manners of the living, discovering in turn refinement or rudeness of taste, knowledge or ignorance, ostentation or modest retirement, affectation of sorrow, or the simplicity and sincerity of real affection and real grief. Had Mr. Alden been less voluminous and less indiscriminate, his collection of epitaphs might have been an interesting and useful work, presenting at least one striking feature in the moral physiognomy of the country.

It was my intention sooner to have given a brief sketch of what may be considered the *National Burying-ground*, as members of Congress and other officers of the government are there interred. I have paid it two visits—the first at evening twilight, in company with the obliging friend, alluded to in my last letter, and an English traveller. We arrived in season to take only an imperfect view of the ground, and to read a few of the inscriptions before the departure of day-light, all the horizontal monuments being covered with snow to the depth of several inches. Yesterday morning I walked there alone, and passed an hour before the meeting of the House.

This cemetery is in a remote and lonely situation, being something more than a mile in a southeasterly direction from the Capitol. It lies immediately upon the bank of East Branch, at the distance of only a few yards from the water's edge, but elevated considerably above it, and commanding an extensive view of the river. The winding path leading to it is over a wide and barren common—there are no houses in the vicinity—and it will be long before it will be in the midst of the city. Had the churchyards of New-York been laid out with the same precaution, they would not now have formed a subject of legislation for the Common Council, nor for newspaper discussion. This grave-yard contains an area of two or three acres, enclosed by a plain wooden fence, and sprinkled with corpses of native cedar, stunted in their growth and many of them withered, either from the poverty of the soil, or from having their roots broken by the spade of the grave-digger. There are however, enough living to conceal many of the graves; and their verdure contrasted with the grey tomb-stones produces an agreeable effect.

The most conspicuous monument, is that erected in memory of George Clinton, Vice-President of the United States. It is a handsome pyramid of stuccoed freestone, ten or twelve feet in height, standing upon a broad base, and mounting by steps. On one side is a profile likeness cut from marble in bold relief, and surrounded with a civic wreath. Beneath is the following inscription: "To the memory of George Clin-

ton.—He was born in the state of New-York on the 26th July 1739, and died in the city of Washington on the 20th of April, 1811, in the 73d year of his age. He was a soldier and statesman of the revolution. Eminent in council and distinguished in war, he filled with unexampled usefulness, purity and ability, among many other offices, those of Governor of his native state, and of Vice-President of the United States. While he lived, his virtue, wisdom, and valor, were the pride, the ornament and the security of his country; and when he died, he left an illustrious example of a well spent life, worthy of all imitation. This monument is affectionately dedicated by his children."—I have copied the whole of this inscription, because it is concise, neat and appropriate, and because I do not recollect to have seen it noticed. The virtues and services of such a distinguished patriot cannot be too often called to mind, especially by the citizens of a state to which he was a public benefactor.

Near the grave of George Clinton, commences a range of monuments, which extends for some rods towards the south, erected to the memory of members of Congress, who died at Washington. These memorials are placed in an exact line, are of the same height, composed of the same materials, uniform in their structure, and uninterrupted in the series, except by a marble pyramid in honor of Capt. Hugh George Campbell, of South Carolina. They are built of free stone, painted white, and consist of short, square, and plain pillars, with a cone at top, and resting on a broad pedestal which rises by two steps. On the face of the pillar, is an inscription, similar throughout, with the exception of names and dates. I shall give that of Mr. Pinkney as a sample, because he is among the most distinguished in this assemblage of the dead, and because it is a perfect contrast to the epitaphs proposed by several persons soon after his death. In plain black letters you find the following brief inscription:—"In memory of the Hon. William Pinkney, a senator in the congress of the United States from the state of Maryland, died Feb. 25th, 1822, aged 53 years." Here sleep the remains, and such is the epitaph of the man, on whose eloquence courts and senates have hung with admiration and delight. By his side and near him, sleep the ashes of Mr. Trimble of Ohio, Mr. Burrill of Rhode Island, Mr. Malbone of the same state, and Mr. Tracy of Connecticut, members of the Senate—together with Samuel A. Otis, former secretary of that body: also, Mr. Smilie of Pennsylvania, Mr. Dawson of Virginia, Mr. Stocumb of North Carolina, Mr. Hazard of Rhode Island, Mr. Walker of Kentucky, Mr. Mumford of North Carolina, Mr. Stanford of the same state, Mr. Brigham of Massachusetts, Mr. Darby of New Jersey, and Mr. Blount of North Carolina, members of the House of Representatives, making an aggregate in both branches, of seventeen. It is somewhat remarkable, that so large a state as that of New York has no other representative in this congress of the dead, than George Clinton, while the small state of Rhode Island has three or four. In the monuments and tomb-stones of other persons interred here, there is nothing very peculiar or striking, if you except the marble slab over the remains of Tobias Lear, which "his desolate widow and mourning son erected to mark the place of his abode in the city of si-

lence," and a plain tomb-stone to the memory of Mr. Machen, with the classical and beautiful expression of filial affection, "Hæu! genitorem, omnis curæ casusque levamen, Amitto."

THE FARMER.

BOSTON:—SATURDAY, JAN. 25, 1823.

FATTENING OF SWINE.

The Hon. Mr. Peters, of Pennsylvania, has asserted that fattening hogs should always be supplied with dry rotten wood, which should be kept in their pen, for the animals to eat as their appetites or instincts may direct. It has been supposed, likewise, that swine thrive better when they can obtain fresh earth, which they are observed often to swallow with greediness. The probability is that nature directs these creatures to the use of such substances as absorbents to correct the acidities of their stomachs. Charcoal, it is said by some, will answer a similar, if not more valuable purpose; and that if swine are supplied with this last mentioned substance they show but little inclination for rooting, and are much more quiet in their pens than under ordinary treatment. It is easy to try the experiment; and if tried we should be glad to be informed of its results.

Mr. Peters, and some other eminent agriculturists have asserted that food for swine is much the best for fattening them, when it has been soured by fermentation, and it is even supposed that one gallon of sour wash will go as far as two of sweet for this purpose. And an English writer tells us that "the best method of feeding all kinds of grain to hogs, is to grind it to meal, and mix it with water, in cisterns made for the purpose, in the proportion of five bushels of meal to a hundred gallons of water; the mass to be well stirred several times each day, until it has fermented and become acid, when it will become ready for use. In this way two or three cisterns must be kept for fermenting in succession; and the profit will pay the expense."

Hogs cannot be fattened so cheaply in very cold as in temperate weather, unless they are guarded with great care against the inclemency of the season. In the winter too, acid or fermented food cannot so well be procured for them, as the low temperature of the air will stop fermentation, if not freeze the wash under ordinary circumstances. The food for swine may be fermented by being kept in an apartment kept at near summer heat by a stove. The wash may also be kept warm by steam introduced according to Count Rumford's plan.* But heating liquids by steam is not so easy a process as would seem at the first thought. There must be a large [that is large in proportion to the quantity of liquid to be warmed] and strong boiler, with two safety valves, one opening outwards to let out the steam, if by the sudden increase of heat, it should acquire so much elasticity as to endanger the bursting of the boiler; and one valve opening inwards to prevent the sides of the boiler from being collapsed, or crushed inward, or the liquid from being forced out of the cistern through the steam tube into the boiler by the weight of the atmosphere. Then there must be steam tubes rising some height above the surface of the wash in the cistern, and descending, vertically, to near its bottom. The steam must be so elastic as to overcome not only the pressure of the atmosphere, but also the additional pressure of that part of the liquid in the vessel, containing the wash, which lies above the opening or end of the tube where the steam is discharged into the vessel.

* See New England Farmer, No. 5, pp. 38, 39.

Various means may be made use of to give the wash a temperature conducive to fermentation. Water-tight tubes filled with flame or hot air, from a furnace or a stove, might answer the purpose by being carried thro' the cisterns containing the wash to be fermented. But for common farming purposes, we believe it will be best either to keep up a moderate degree of heat in the room or cellar in which the wash is kept for fermentation, by means of stoves, or to make use of kettles or caldrons set in brick in the common way, in which after the materials have been well boiled, the liquid must be kept of a proper temperature for fermentation, by occasionally heating them. Wooden vessels, or circular rims of wood, may be so adapted to the tops or rims of these kettles, that the whole will contain three or four times the quantity, which the kettles alone would hold. In these roots and other food might be boiled, steamed and fermented, at the will of the owner or superintendent of the process. Where fermentation is the object, it may be well to mix with the sweet wash a little of that which is already soured, to serve as yeast or leaven.

FARMER SUMMARY OF NEWS.

CONGRESS, for aught we can perceive, are proceeding pretty correctly, and do not appear to be much affected with a certain *endemic* disorder, which used to break out in speeches of more length than substance. To give a detail of their proceedings in our paper, without encroaching on our other provinces, would require rather more talent than is necessary to compress an Iliad into a nut shell. We shall therefore merely ejaculate a *sheep's eye* towards them, occasionally, without pretending to give a regular survey of their proceedings. There is some prospect of their abolishing imprisonment for debt—of their amending the Constitution relative to the election of President, in such manner that in certain cases the House of Representatives shall choose one of the two highest candidates. They have still on the carpet certain resolutions relative to national defence, and organizing the militia, which, when hammered into a workmanlike shape, we shall perhaps present to our readers. They have a bill for regulating the commercial intercourse with Canada, which will probably prove interesting to those whom it may concern. Some wagon loads of private petitions go likewise to swell the national budget of proceedings. A new naval peacc establishment is also in contemplation. They seem determined that Uncle Sam shall not be taken in by gentlemen who possess more wit than honesty, and have therefore under the national thumb "an act in addition to an act for the more prompt settlement of public accounts, and for the punishment of perjury." An amendment of the Constitution is proposed to give Congress power to establish and construct roads and canals. This some suppose will be merely confirming a power already given by the Constitution.

MASSACHUSETTS LEGISLATURE is mostly occupied by business of a private and local nature. They have before them, an act for the sale of certain lands in Maine, which they must, according to the act of separation, either transfer to that state or pay her \$30,000. Likewise, a bill authorising towns not exceeding a certain amount of population, to employ schoolmasters, who are not versed in Latin and Greek. Moreover, the financial prospects of the Commonwealth appear to look a little blue. According to a report from the committee of Ways and Means, exhibited by Mr. Jarvis, it should seem that the annual revenue for a number of years is likely to be at least \$35,000 dollars short of the annual expenditure, and this deficiency it is proposed to supply by a tax on auctions. The session, however, appears to be characterised by that harmony and dispatch of public business, which bids fair to promote the public welfare, and assure the approbation of their constituents.

FOREIGN.—The last news from Europe brings London dates to Dec. 7th; Paris dates to the 4th Dec. Madrid to the 25th, and Verona to the 26th November. The Congress at Verona is dissolved. An official remonstrance has been or will be dispatched to the Cabi-

net of Madrid, demanding such an alteration in the Constitutional system as will at least render it analogous to that of Portugal, and place the crown beyond the reach of popular control. In case of refusal, (says a London paper) Russia, Austria and Prussia will give their fullest sanction to the hostilities, which the Ultrar of France are so anxious to commence—and there is no doubt that the army of observation will soon cross the frontier. England is not to be a party to the measure, unless the Constitutionalists shew a determination to put the king to death, or to invade other countries. The Russians are said to be hostile to Spain.

The Greeks are to be left to the good will of the Turks, who have promised to behave with moderation. This, a London editor remarks, is the most farcical of all political farces, as it is delivering the lambs to the tender protection of the wolf.

A London article of Dec. 7th, states that the Duke of Wellington is hourly expected at Paris, and it is reported that the French Government's determination, in regard to Spain, is suspended until the arrival of the Duke.

A letter received in London from St. Petersburg, states that Capt. Waschew, just returned from his voyage of discovery, had not only passed up Bechring's Straits, to a higher latitude than Capt. Cook, but had determined the true position of the northern continent of America, from Tey Cape to Alaska, and found an island north of it inhabited.

A widow woman, of Varness, in France, was murdered on the 20th of October last. When discovered, she still grasped in one hand some locks of hair, which, in struggling she had torn from the head of the murderer, and which led to his arrest.

DOMESTIC.—The President of the United States has ratified the Convention made at St. Petersburg, relative to indemnifications for slaves carried off by the British during the late war, by proclamation dated the 11th inst.

The Hon. H. G. Otis, L. L. D. has been elected Member of the Corporation of Harvard College, in place of the Hon. John Lowell, L. L. D. resigned.

Literary Prizes.—The prize awarded by the managers of the Philadelphia Theatre to Mr. Sprague, for his address, delivered at the opening of the Theatre in that place, is a handsome silver cup, of neat workmanship, bearing on one side, the inscription *Audique vocatus Apollo*, and on the other "Presented by Warren and Wood, to Charles Sprague, Esq. of Boston, author of an Address delivered at the opening of the New Theatre, in Philadelphia, Dec. 2, 1822." Mr. Sprague, some time since, received from the managers of the New York Theatre, a large gold medal, with appropriate inscriptions.

Important Invention.—We find it stated in one of our last files of English papers, that a Mr. Cook, of Birmingham, has discovered a method of rendering all sorts of cotton, linen, muslins, &c. (as well as timber itself,) incombustible, by immersing them in a solution of vegetable alkali.—*Even. Gaz.*

David Sears, Esq. has presented to the Mayor and Aldermen of the city of Boston, a handsome edifice built for a vegetable market, and situate in Brattle-st. It appears by the deed (says the Boston Patriot) that he presented to them six hundred shares in the corporate property of the Museum Hall Corporation, the net income of which is annually to be funded, and one half the income of the fund is to be applied to embellishing the Common and the Mall, and to such other ornaments of the city, as the Mayor and Aldermen may think proper. Under the municipal regulations of the Market this fund will annually increase, and finally yield a large revenue.

The Hon. Nicholas Brown has presented to the Corporation of Brown University, Providence, an elegant brick building, 4 stories high, 120 feet long, 40 wide, containing 48 rooms.

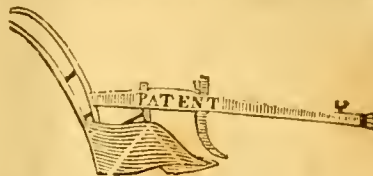
Trask, a criminal, who has been confined in gaol in this city about a year, and lately murdered two persons inured in the same cell with himself, made his escape on Tuesday night last, by removing one of the stones from the wall of the prison.

A man by the name of Echert, was killed on the 1st inst. in Penn. by the discharge of a gun. It had been loaded a long time, and in attempting to set fire to the powder it contained, with a lighted coal, it was discharged and shattered his head to atoms.

DIED.—In New Haven, on the 12th inst. the Hon. JONATHAN INGERSOLL, Lt. Governor of Connecticut. In Canandaigua, N. Y. Hon. GIDEON GRANGER, formerly Post Master General.

On board the ship Moss, on the 27th October, on his passage from Philadelphia to London, Hon. WILLIAM LOWMEDES, of South Carolina.

In Brunswick, N. J. Gen. JAMES W. RYAN, at the advanced age of 107 years.



FOR sale at the Agricultural Establishment, No. 20, Merchant's Row, a general assortment of the most

APPROVED FARMING TOOLS—viz.

Harrison's Corn Shellers; Straw Cutters; double and single mould board Ploughs, of various kinds—Benson's Cultivators—Bennett's Broad Cast Machine for small seed; extra cast steel broad and narrow Hoes—Foster's Best English Shovels—Ames' back strapp'd do. Can's English cast steel warranted Scythes and Hay Knives; Brush Scythes—Stevens' Patent steel spring Hay and Manure Forks—Brown's Vertical Wool Spinner, &c. &c. Boston, Jan. 25.

NEW SYSTEM OF SHOEING HORSES.

JUST published, and for sale at the principal Book-stores in this city, A NEW SYSTEM OF SHOEING HORSES, by JOSEPH GOODWIN, Veterinary Surgeon to His Majesty George IV. and Member of the Royal College of Surgeons; including Observations on Bleeding and the Pulse, a Concise View of the Anatomy of the Foot, Notes, Remarks, &c. Jan. 25.

AMERICAN MANUFACTURED PAPER.

HOLBROOK & FESSENDEN manufacture at their Paper Mill, in Brattleborough, (Vt.) WRITING PAPER of an excellent quality, and much superior to any of a correspondent price imported. They have Foolscap for \$1.50 a ream, not inferior to English paper which costs \$2.00 a ream. Their LETTER PAPER is also fine, and sold cheaper than imported paper of a similar sort. Specimens may be seen at Mr. Josiah Loring's Bookstore, No. 1, South Row. Jan. 25.

THE MENTOR AND LADIES' BOUQUET.

NATHANIEL DEARBORN respectfully announces to the public, his intention of issuing a Weekly Paper, provided their patronage should authorize the attempt.

This determination has been taken with the advice of many friends, among whom are some ingenious minds which are enlisted for this cause;—it has also been strengthened by the circumstance that the editor's compositions have been deemed of sufficient merit, generally, to be republished, which has been his only reward.

It will be the intent of the editor, to advance, in every degree within his power, the rational pleasures of man;—to plead the cause of virtue;—to lure the youthful mind to love and to embrace those principles which can never satiate, but which ennoble human nature.

To our fair country women, we pledge our best efforts to promote their interests;—in every act it will be our aim to merit their approbation. The paper will be entitled *The Mentor and Ladies' Bouquet*.

Its general outline will consist of extracts from scientific works;—as a "Mentor," it will always contain some judicious moral essay;—and for the "Ladies' Bouquet," will be gleaned the choicest, fairest flowers.

Its size will be a royal quarto, pagged—issued each Saturday afternoon—Price, per year, \$2.50; half year, \$1.25; quarter of a year, 75 cents;—payable in advance.

Subscriptions received by Col. Benjamin Loring, No. 50, State-street; Mr. I. W. Goodrich, No. 78, State-st. Mr. Josiah Loring, No. 1, South Row, and at C. Calender's Library, School-street.

Should public favor be expressed for the appearance of this proposed work, the same will be announced through the medium of the daily prints. Jan. 25.

From the True American.

TO A NEW-ENGLAND POET.

Though skilled in latin and in greek,
And earning fifty cents a week,
Such knowledge, and the income, too,
Should teach you better what to do;
The meanest drudges, kept in pay,
Can pocket fifty cents a day.

Why stay in such a tasteless land,
Where ALL must on a level stand,
(Excepting people, at their ease,
Who choose the level where they please :)
See IRVING gone to Britain's court
To people of another sort,
He will return, with wealth and fame,
While Yankees hardly know your name.

Lo! he has kissed a Monarch's—hand!
Before a PRINCE I see him stand,
And with the glittering nobles mix,
(Forgetting times of seventy-six,)
While you with terror meet the frown
Of Bank Directors of the town,
The home-made nobles of our times,
Who hate the bard, and spurn his rhymes.

Why pause?—like IRVING, haste away,
To England your addresses pay;
And England will reward you well,
When you some pompous story tell
Of British feats, and British arms,
The maids of honor, and their charms.

Dear Bard, I pray you, take the hint,
In England what you write and print,
Republished here in shop, or stall,
Will perfectly enchant us all:
It will assume a different face,
And post your name at every place,
From splendid domes of first degree
Where ladies meet, to sip their tea;
From marble halls, where lawyers plead,
Or Congress-men talk loud, indeed,
To huts, where evening clubs appear,
And 'squires resort—to guzzle beer.

N.

SELECTED FOR THE NEW ENGLAND FARMER.

The desire of being thought wise is often a hindrance to being so; and a man often remains ignorant of matters of importance to his welfare, merely because he is more anxious to let the world see what knowledge he has than to acquire that which he has need of.

Those men who know most, are the most anxious to know more, because in consequence of being the best able to set a proper estimate on the advantages of knowledge, they value it the most highly. But ignorant people think they have nothing to learn, because they have learnt nothing; and remain contented in ignorance because they are not sensible of their want of knowledge. Some rays from the lamp of knowledge are requisite, in order to make mental darkness visible to those who are enveloped in it.

No man ever did a premeditated injury to another without doing a greater to himself.

Dr. Franklin observed, "The eyes of other people are the eyes that ruin us. If all but myself were blind, I should want neither fine clothes, fine houses, nor fine furniture."

The poorer a man is, the more necessity there is for his being honest. A rich knave may, perhaps, prosper for a while in worldly affairs, but a poor knave will soon have as little credit as cash, and not only suffer but deserve all the evils which poverty can inflict.

The recoil of a blow unjustly aimed, is generally more powerful than its direct impulse.

He who lives without economy or prudence in his youth, may commonly expect to live without comfort in the decline of life.

Many persons are too subtle and suspicious for their own interest and enjoyment. They put some sinister construction on every look, and find out something amiss in every smile. Acting in disguise themselves they mistake all outward shows and appearances for hypocrisy in others. But, perhaps, no people see less of the truth and reality of things than such refiners upon incidents.

Extract of a letter from one of the Editors of the New York Statesman, now in Washington.

Patent Office.—Some days since, a member of the House of Representatives, to whom I am under many obligations for his politeness in pointing out objects worthy of attention, and in imparting information which a long residence at the seat of government has enabled him to collect, accompanied me to the Patent Office. Although our morning visit was protracted at my solicitation, and the superintendents, as well as my friend who had often been there before, were assiduous in pointing out the articles most deserving of particular notice; yet an examination of an hour or two could not of course enable me to take any thing beyond a hasty glance at this great repository of patents and models. It would require a year of close study to investigate and describe the machinery here deposited for the benefit and curiosity of the public. It may be denominated a temple of the useful arts. In a collection of models amounting to three thousand eight hundred in number, there is apparently every possible modification of motion, by a combination in some shape of every principle in mechanical philosophy. All the great agents of nature, such as fire, water, air, steam, animal strength, the gravitation and elasticity of matter, aided by the artificial powers of the inclined plane, lever, screw, wedge, and pulley, have been put in requisition and applied with almost infinite variations, to the purposes of life. I regretted to observe one or two abortive attempts at perpetual motion, as all such attempts must be, until the established laws of nature are changed, and inertness ceases to be a property of matter.

CURIOUS DISCOVERIES.

When the foundations of the city of Quebec, in Canada, were dug up, a petrified savage was found among the last beds to which the workmen proceeded. Although it was impossible to form any judgment of the time which this man had been buried under the ruins, yet his quiver and arrows were in good preservation.

In digging a lead mine in Derbyshire, in 1744, a human skeleton was found among stag's horns. It is impossible to say how many ages this carcase had lain there.

In 1695, the entire skeleton of an elephant was dug up in Thuringia, in Germany; and

some time before the petrified skeleton of a crocodile was found in the mine of that country.

About the beginning of the last century, the curate of Slägarb, in the Swedish province of Schonen, and several of his parishoners, digging turf in a drained marshy soil, found some feet below the surface of the ground, an entire cart with the skeletons of the horses and carter. It is presumed that there had once been a lake or pond on that spot, and the carter had perished in attempting to cross over upon the ice.

By the falling down of a piece of the cliff, on Walton shore, near Harwick, the skeleton of an enormous animal was discovered, measuring nearly 30 feet in length. Some of the bones were nearly as large as a man's body, and six or seven feet long; the cavities which contained the marrow, were large enough to admit the introduction of a man's arm. The bones on being handled broke to pieces. One of the molar teeth was carried to Colchester. It weighs seven pounds, is of a square form, and grinding surface; it is studded with several zigzag rows of Laminæ, which seem to denote that it belonged to a carnivorous animal. There were more teeth, which were unfortunately broken, one of which weighed 12 pounds. It is probable that the tusks will be found, by searching further into the cliff, or amongst the earth which has fallen down. The above skeleton is supposed to belong to an animal of the same species as that called the Mammoth, the remains of which have been found in North America, Great Tartary, &c.

A laborer in a stone quarry in the village of Pantin, near Paris, having detached a large block of stone, found in the middle, a skeleton of a ram petrified. Each part of the stone contained a perfect half of the animal; the parts were very distinct. The block was dug out of the natural rock at the depth of 30 feet from the summit of the quarry. A petrification so curious, was immediately deposited in the Museum of Natural History.

A Yankee Trick.—An eastern pedlar lately desired accommodation for the night at a tavern in the south part of this county; but from the prejudice frequently existing against this class, our host for a long time refused. At last, he consented, on condition that the pedlar should play him a Yankee trick before he left him. The offer was accepted. On rising in the morning, Jonathan carefully secured the coverlet of the bed, which among other articles he pressed the landlady to purchase. The low price of the coverlet operated at once upon the latter, who insisted that her husband should buy it, adding that it would match her's exactly. Jonathan took his money, mounted his cart, and got fairly under way, when our host called to him that he had forgotten the Yankee trick he was to play him. Oh never mind, says Jonathan, you will find it out soon enough.—*Winchester (Va.) Republican.*

Grammatical Error.—What offence has the unfortunate verb "have," committed, that it should be left out between the pronoun "I," and the participle "done!"—As, for instance, "I done so," "We done so," &c. When inaccuracies like these are found in the walls of a college, and in a legislative hall, it is time to notice, in order to correct them.—*Charleston Courier*

NEW ENGLAND FARMER.

Published every Saturday, by THOMAS W. SHEPARD, Rogers' Building, Congress Street, Boston; at \$2.50 per ann. in advance, or \$3.00 at the close of the year.

VOL. I.

BOSTON, SATURDAY, FEBRUARY 1, 1823.

No. 27.

DISEASES OF CATTLE.

SELECTED AND COMPILED FROM THE BEST AUTHORS,
BY THE EDITOR.

Diarrhœa, Looseness, Slimy Flux, or Scouring Rot.

This disorder consists in a frequent discharge of dung, of an unusual color, thin and slimy.—The animal gradually loses flesh, but continues for some time to feed well and ruminate. At length the excrements become of a darker color, and frothy, and in the latter stages have the appearance of half-chewed food, the digestive power being entirely lost. It is said that when animals have been long affected with this disease, they feel a great degree of pain and distress when grasped on each side the backbone, just below the shoulders; and this is sometimes considered, by dealers in cattle, as a mark of a beast's being tainted with the scouring rot.

The fatal symptoms are the dew-lap hanging down and having a flabby appearance; the dung running off, with a putrid and offensive smell, and as it falls to the ground, rising up in bubbles; the hair all over the body appearing pin-feathered, or erect, as if the animal was enduring a severe cold.

The causes of this complaint are exposure to cold and rain, particularly when the animal has been over-driven or heated by working immediately before such exposure. Drinking plentifully of water, under similar circumstances, will also produce this disease. Want of nourishment, particularly in cows that are constantly milked, often causes this disease. Perspiration suppressed by any cause; putrescency of the aliments may also bring on this complaint. It often attacks cattle which have been kept short during the winter, and when they are put to grass in the spring, they are seized with a diarrhœa, particularly if the weather is wet or cold, and grass plentiful.

Mr. Lawrence says, "If, on the first appearance of the scouring, cattle are taken in, and kept on dry food, it will generally supersede the use of medicine." "This," says Mr. White, "is certainly necessary; but is not, I believe, sufficient to eradicate the disease; and though it may suppress it for a time, yet the scouring generally returns, when the animal is again sent into the pasture. The immediate cause of the disorder appears most frequently to be an unhealthy action of the liver, which seems to form bile of an acrid or hurtful quality, by which the bowels are constantly irritated. I would advise, therefore, in the early stages of the complaint, to give the following drink for three successive mornings, which will rather increase the scouring at first; and, when the effect of the medicine has ceased, let the astringent drink be given every morning and evening."

First drink for scouring.

Epsom salts	1 lb.
Nitre	2 oz.
Camphor	$\frac{1}{2}$ oz.
Coriander seed	2 oz.

Mix for one dose.

This dose should be repeated for three mornings following, unless it cause sickness or grip-

ing, or increase the scouring in a considerable degree. On the fourth morning, begin with the astringent drink, or earlier, should the above medicine produce its effect before the three doses have been taken. During the time the cow is taking the former medicine, she should be supplied with warm fluids, of which thin gruel is the best, and must not be exposed to a cold air.

Astringent Drink.

Take of starch	4 oz.
Mix in the usual way, that is, as it is employed for stiffening clothes, with three pints or two quarts of water, so as to make a thick mucilaginous fluid; to this add,	
Tincture of opium	2 dr.
Ginger	3 dr.
Catechu, or terra japonica	$\frac{1}{2}$ oz.
Mix.	

Or the first drink for scouring may be:

Common salt	3 oz.
Flour of mustard	2 oz.
Water	$1\frac{1}{2}$ pt.
Oil, or melted lard	$\frac{1}{2}$ lb.

This will increase the discharge for a short time; afterwards, the dung will gradually become of a more natural consistence. But should the scouring continue, give the astringent drink already prescribed, or the following:

Powdered catechu	6 dr.
Tincture of opium	$\frac{1}{2}$ oz.
Powdered ginger	2 or 3 dr.
Warm ale, beer or water	$1\frac{1}{2}$ pt.
Mix.	

The powder or tincture of galls, would also be found a powerful astringent.

With respect to the scouring, or diarrhœa in calves, which is not an unfrequent complaint, a different treatment is to be pursued. They may generally be cured by the following drink, given morning and evening:

Take of the above starch mixture	1 pt.
Powdered chalk, or what is called prepared chalk	3 dr.
Powdered ginger	1 dr.
Tincture of opium	1 dr.
Mix.	

Lambs are subject to a similar disease, and may be cured by the same means, only lessening the dose.

In the diarrhœa, which arises from exhausting a cow by constant milking, when she is not sufficiently fed, or is supplied with food of a bad quality, the remedy is sufficiently obvious. But, in this case, it too often happens, that the constitution is worn out, before it is thought necessary to alter the poor animal's condition. Whenever this change is made it must not be done too hastily, as other diseases might thereby be produced.

When the scouring has ceased, the cow should be brought back to her usual state gradually. At first she should be turned out for a few hours in some dry pasture, when the weather is favorable; and her drink should be given less

warm. This precaution is highly necessary, as the affected parts do not immediately recover their strength after the scouring has ceased.

The Complete Grazier directs that the beast taken with this disease should be immediately housed and put to dry food, which treatment, in the earlier stages of the disorder, will, generally, effect a cure. Should this, however, fail, it is advised, in that work, to boil a pound of mutton suet in three quarts of milk, till the former is dissolved, and give it to the beast in a luke warm state; or, in obstinate cases, to boil half a pound of powdered chalk in two quarts of water, till it is reduced to three pints; add four ounces of hartshorn shavings and one of cassia, and stir the whole together. When cold add a pint of lime water and two drachms of the tincture of opium; keep the whole in a corked bottle, and, after shaking it before using, give one or two hornsful, two or three times a day, as the nature of the case may require.

Red Water, or Bloody Urine.

In this disorder the urine appears as if it were mixed with blood. As the disease advances, the urine becomes of a darker color, and at length resembles foul coffee; the animal loses strength rapidly, and sinks under the disorder. Cattle attacked by this disease seldom live beyond the tenth or twelfth day, unless it is put a stop to by proper remedies. It is generally attended with costiveness; and if this is not the case at first, it almost always happens in the course of the disorder, unless prevented by laxative medicine. It is caused by weak relaxed vessels; thin blood; cold; change from a poor to a rich pasture; scarcity of water in a long and dry summer; blows across the loins; some animals appear to have the disease hereditary.

Dr. White recommends, in the first place, the following mild laxative:

Epsom salt, [sulphate of magnesia] or common salt	4 to 6 oz.
Nitre	1 oz.
Whey, or thin gruel	1 qt.
Oil, or melted lard (but castor oil is preferable)	6 to 8 oz.
Mix.	

After the laxative, should the disease continue, the following drink may be given:

Alum	1 oz.
Dissolve it in a pint of hot water, and add—Oil of turpentine	2 oz.
Powdered catechu, or terra japonica	1 oz.
Mix.	

When red or bloody water is caused by strains or a bruise in the loins, it is distinguishable by the tenderness of the part, the animal giving way when it is pressed upon, and by stiffness in the motion of the hind parts. In this case, also, a laxative may be given; and, if the injury is considerable, the loins should be fomented with hot vinegar, and afterwards covered with a fresh sheep's skin.

Whenever the animal is observed to be frequently endeavoring to stale, voiding only a

small quantity, with much pain and difficulty, turpentine and all other diuretics, are improper; mucilaginous drinks, such as infusion of linseed, and decoction of marsh mallows are most likely to afford relief.

The Farmer's Assistant asserts that this disorder has very rarely been known in this country.

(TO BE CONTINUED.)

SWEET POTATOES.

We have been requested by several of our friends to furnish directions relative to the most approved mode of cultivating the SWEET POTATOE. The following article is copied from the Boston Daily Advertiser of October 27, 1821; and the signature attached to it, may preclude the necessity of our declaring that the mode of culture which it prescribes may be relied on as correct.

Directions for the preservation of the Slips of the Sweet Potatoes, and for their cultivation.

The Slips are nothing more than the small potatoes or roots last thrown off by the plant.—They are preferred to larger ones on the several grounds, of economy, of food and of room—of their being more easily preserved, and less likely to rot in the ground after they are planted. The writer of this, during fifteen years, never succeeded in getting more than one large sweet potatoe to vegetate or grow in the open ground. The ignorance of the mode of culture has probably been the cause of their not having been raised here.

The slips should be put up for preservation without bruising them (or as the directions from New Jersey expressed it, they should be handled as carefully as eggs) in a dry state, in perfectly dry sand or earth, and kept in a warm place as free as possible from moisture.

Those who wish to be perfectly assured of their success, will raise a small hot bed with, or without glass about the 10th of April, on the south side of a fence, wall or building.—On this, they will lay the slips or roots so close as to touch each other, so that a bed of six feet square will be sufficient for a bushel of them. They should then be covered with about an inch of earth. If the cultivator has no hot bed frames, the bed at night may be covered with a mat or with straw.

In 10 or 14 days some of the shoots will appear above ground; when about one half or even a third so appear, they are all to be taken up to be planted. The lightest soils are best adapted to them. As their roots almost universally strike downwards, like those of the carrot, they are always placed on hills raised about nine inches, or about the height of a potatoe hill, after its last faithful hoeing. These hills should be four feet and a half apart in every direction. The slips, two in each hill, one foot apart, are then put in either with the fingers, or a stick, or any instrument capable of making a sufficient hole, and the crown or top should be within an inch or half inch of the surface. When thus started or sprouted, it will be easy to distinguish the end which sends out roots, from that which puts forth shoots for the open air. The slips should be put in perpendicularly or nearly so, the root end downwards. They would grow without this precaution, but would be delayed and injured in their growth. A little dung dug, or hoed in, will much aid their progress, unless the land be rich. They cannot bear moist, or

any rich grounds, or places, where the water stands, after showers. Their vines grow too luxuriantly in such situations, and their roots are softer and more watery. The late season was too wet to enable us to raise them in the highest perfection, but a majority of them were still very good.

After they are planted they require the same treatment as the squash or pumpkin, that is, simply weeding them. In the Jerseys, they raise the runners from the ground when they weed them, so as to prevent their taking root, which they do more readily than any plant, and which the Jersey farmers think injurious to the main roots. The subscriber permitted nature to take its course, but he should certainly make the trial another year of the New Jersey method.

The products for two successive years have been at the rate of 220 bushels to the acre, with no greater care, nor indeed so much as that bestowed on common potatoes. They were planted this year early in June, and were hilled on the 10th of October, which is at least 45 days less growth, than they would have in common years, or if the seed had arrived earlier. They will begin to be palatable and fit for table about the 15th of September, or the 1st of October, as the season may have been hot or cold; but the general crop ought not to be dug till the vines are killed. They will endure seven or eight successive hoar frosts after the common potatoe stalks have been killed. So many persons have applied for slips, that it was the advice of some of them, that these hints should be published. It is not pretended that the culture is of any agricultural importance—it is merely an horticultural experiment very pleasant to those who have a taste for such pursuits—and also gratifying to those who love the sweet potatoe. They certainly can be raised here of excellent quality full as often as we can raise good grapes, peaches, or even pears.

JOHN LOWELL.

P. S.—They should not be gathered in by the hoe, or even spade—they must be raised like the carrot by the dung-fork.

REPORT

OF THE COMMITTEE ON AGRICULTURE,

Appointed by the Legislature of New York.

We have received, by the kindness of some friend, (to us unknown) a long Report submitted by Mr. BUEL to the House of Assembly of the State of New York.—It is a production of great merit, but its length precludes its insertion, entire, in our columns, at present; though we hope to find room for it hereafter. The following summary sketches of its contents, are taken from the Albany Argus.

On Friday last, Jan. 17, Mr. Buel, from the standing committee on agriculture, made a long and interesting report. This document occupies twenty-two pages of manuscript, and is too long to be published entire in a newspaper. We shall endeavor to present an abstract that will shew the substance and general objects of the report.

In the introduction, the report notices the importance and necessity of having agricultural pursuits aided and protected by the legislature. It mentions the great excess of the value of imports in our country, over that of our own productions exported; and the injurious consequences to be apprehended, unless proper measures

are adopted to prevent them; and insists, that among the measures best calculated to effect a reform, are—the improvement of agriculture—the protection and encouragement of domestic manufactures—a rigid economy in every department of the government.

The report next states, as a subject of regret, that so little has been done for the encouragement of agriculture, while almost every other pursuit in life, has experienced the liberal and fostering care of government.

"If, then, agriculture is the fountain from whose abundant streams every portion of our country is watered and refreshed,—how important is it that we should watch over it with paternal care—that we should disseminate its improvements, and endeavor to multiply its blessings;—that we should elevate it to the rank of a liberal and fashionable study, and call in the aid of science, and of approved experience, to enlarge the sphere of its usefulness. To effect these desirable ends, your committee respectfully recommend, that a law be passed, for establishing a school of agriculture, for the education of our young men in the practice and theory of husbandry."

The report shews, that in no country are the inducements to disseminate knowledge among the agricultural class, so strong as in the United States. And, anticipating the objection, that the project of establishing an agricultural school, might be considered as an untried experiment, states—that though in Great Britain no such school has been established, yet that its place has there been supplied by the liberality and enterprise of several of the great land holders of that country, and refers to several strong cases to illustrate the benefits which that country has derived from the patronage these large land holders have bestowed on the pursuits of husbandry.

The report next shews that the experiment would not be altogether new; that agricultural schools have been established in Switzerland, France, Prussia, Italy, and the Austrian States; and notices, particularly, the very celebrated school at Hofwyl, in Switzerland; which is arranged under the following heads:

"1. A pattern farm, designed to serve as a model. This exhibits "the principle and the application of all that has been found advantageous, and, at the same time, the most accurate practical details."

"2. An experimental farm, designed to advance the progress of the science and the art, to assist the labors of the pattern farm, and to give exercise and instruction to the pupils.

"3. A manufactory of implements of husbandry, of the most approved models, for the use of the school and for sale under the care of a skilful mechanician.

"4. A school of industry for the poor. The boys belonging to this school, taken from the most indigent classes, are gratuitously instructed by a competent master, who is constantly with them. They are kept by themselves—receive a good education, and are taught agriculture, and some mechanic art, in shops attached to the establishment, where most of the useful trades are carried on.

"5. A boarding school for the children of affluence, who are sent thither from the German states as well as from the neighboring cantons. The very complete education which these re-

ceive, under the eye, and in the house of the principal, terminates with a course in the agricultural institute; at the same time its forms pupils who carry to their abodes the theoretical and practical knowledge which they have acquired.

"6. An institute of agriculture, theoretical and practical."

The Hofwyl school was established about 16 years ago, by an enterprising individual of the name of Feltenbergh: It has acquired great celebrity in Europe; has served as a model for others; and has supplied them with instructors. The report gives an account of other schools which have been established under the patronage of the governments of France, Prussia, &c.

It next refers to efforts which are making in some of our sister states to establish agricultural schools: the subject having been twice before the Legislature of Pennsylvania: and in Virginia, the late President Madison is seriously engaged to bring about the establishment of such a school; and it urges on our legislature the propriety of this state's taking the lead in this, as she has in other great public improvements.

The report next points out the several advantages which it is supposed will be derived from such an establishment.

FIRST. To agriculture, by the increase of the productions of the earth; and mentions several instances to prove the almost incalculable benefits which the English farmers have derived from the adoption of what is called the new system of husbandry—by the introduction of improved implements and machinery. "An English writer estimates that 1,800,000 pounds sterling would be annually saved in that kingdom, if half of its wheat were threshed with the improved threshing mills: and Mr. Burgess, of Rhode Island, calculates, that in that small state there must be an annual saving of 3,000 dollars by the general use of Wood's cast iron plough."

That with an experimental farm, great expense might be saved to farmers in general; and many useful improvements would probably be made from time to time.

SECONDLY. To commerce and manufactures. These always flourish with the multiplied productions of the soil.

THIRDLY. To the morals of our citizens.

FOURTHLY. To the revenues of the state. The increased productions of the soil, would necessarily add to the income to be derived from tolls on our extensive canals.

FIFTHLY. To the political institutions of the country.

It proposes to submit the plan and regulations of the school to be determined by a board of commissioners. It appears that Mr. Van Rensselaer, our present representative in Congress, has engaged to give to the institution a sufficient quantity of land, to answer all its purposes.

The report suggests the propriety of appropriating an annual sum for the support of this school, and points out several sources from which funds might be created for the use of the institution. It exhibits a statement of 2,618,579 dollars, which have been appropriated by the state for literary purposes; and concludes by stating, that "The above abstract is not introduced to call in question the wisdom of the legislatures who made these appropriations, but to direct public attention to an important fact

which it discloses, viz. that of all these munificent grants, amounting in the aggregate to about three millions of dollars, not one dollar has gone in *direct* aid of agriculture, the great business of our state, the source of its wealth, and the foundation of its greatness. Of the one million two hundred and fifty-five thousand dollars, given to colleges and academies, the cultivators of the soil have derived but very little *indirect* benefit: for, through these seminaries lies the road to the professions,—not to the plough; to mental, not to bodily labor. Eighty-three thousand one hundred dollars have been appropriated exclusively to the medical department. Now that we have bestowed so much care and expense upon the *limbs*, your committee conceive it to be just and proper, that we should endeavor to infuse intelligence, vigor, and activity into the *body*, that it may the better sustain and strengthen the members."

From the American Farmer.

The Curing or Preservation of Meat; with thoughts on the causes of Rust.

Elmwood, January 10th, 1823.

DEAR SIR,

We had some conversation lately about the yellow rust, that is so disagreeable in bacon;—and I referred you to a paper in your Farmer, vol. 2, on that subject. To the causes there assigned, I have to add another, that I did not know of then; and perhaps it is the most general, viz: the moisture and closeness of the meat house. I was led to this discovery by keeping some meat, that was ready for smoking, three weeks in a close house built on the ground; and before *one* fire was kindled, it was becoming rusty. Salting and drying are the two methods of curing meat—and a proper combination makes our best bacon. The addition of smoke, I consider as merely a flavor, notwithstanding what great chemists have said about rubbing on a little pyroligneous acid to cure meat. The Londoners, I am told, have no smoke houses; they simply dry their meat in kitchens. Meat that is excessively salted by laying very long in plenty of salt, as also such as is excluded from the air, as barrelled pork, is not apt to grow rusty, but by very long keeping. Hence it follows, that our nicest meat is most in danger; and the pieces we salt least are the most apt to be rusty, viz: chins, joles and middlings. Hams are the least liable, because kept longer in salt, and more protected by skin. There can be no doubt that meat kept so long moist, will have some of the salt on the surface carried off by the air, taking up the saline moisture, which is soon collected again;* whereas, when it is dried quickly, the reverse happens, for the decrease in the volume of the meat will condense the salt, and it will crystallize on the surface. I think our small pieces would do best to be first dried in a kitchen, and then smoked four or five days at most. Smoke will flavor and color rapidly when the meat is dry. All meat houses should be constructed so as to be dry and airy. None should be in immediate contact with the ground—but here lies a difficulty, yea, a double difficulty: flies and rogues may enter with the air. I have had a lattice door hung inside my

* Some chemists might deny the salt being carried off in this way, but they have only to look at a brick house near the coast to be convinced; there they will see the salt 100 feet or more, above the water level.

strong door, which latter is shut at dark; and as soon as a fly can shew his head, by which time the meat will be cured, I shut all up so close, that one fly cannot see another. This I have found in all places and cases, the only infallible preventive against skippers. Those who continue the light of even four inches square, must put their meat up early in March into bags, or give it a disagreeable dressing with ashes, if they expect to be the only feasters on this gentle delicacy.

Perhaps an opening in the floor of a house, with a grate and wiring, would be more eligible than a lattice door; and if the foundation was well stoned all over, and the house elevated a few inches from the ground, it would be rogue proof; but perhaps even six inches might be too high; for these gentry are very much of the serpent kind, and might flatten out for the moment, to secure a good distention with such tempting stuff.

Such smoke houses as are built over other houses, should have a large flue from the bottom, but the fires should never be put there, or the meat will keep damp—and moreover have a bitter taste—for the warm smoke will be condensed on the bacon by the relative coldness. This I have experienced.

There is much dispute with house keepers whether we should smoke in damp seasons, when the meat is dripping. I consider it safest *not* to smoke; for if you do not succeed in drying it, which can hardly be done so quickly, you will injure the meat much more than the weather will. SILVANUS.

PRINTING PRESSES.

The London Courier of December 8th says; "A newly invented printing press, called the British and Foreign Printing Machine, was exhibited a few days ago to a numerous body of printers and scientific men, who expressed themselves highly satisfied with its extraordinary powers. It appears admirably calculated for the printing of books, newspapers, and, in fact, for every description of work that can be done by machinery. In velocity of movement it rivals steam printing machines, and far excels them in clearness of impression and goodness of register. Two men and three boys were enabled to print at the rate of 25 sheets in a minute, every impression being remarkably clear and perfect. The Patentee, we understand, is Mr. T. Miller of 76 Fleet-street."

The Vertical Printing Press, recently invented by Mr. Daniel Neall, of Pennsylvania, is spoken highly of in the Philadelphia papers.

"One person alone is required to work a Press on this principle. The undivided attention of the operator is required to supply the paper, give the pressure, and remove the printed sheet; while the machine, by acting and reacting powers, supplies the type with ink, maintains its motion, and prepares for a new impression, in less time than would be requisite for two hands in the common mode, to perform half that service."

The whole number of the Militia of the United States and Territories, agreeably to the latest returns that have been made, amount to 937,447, allowing five thousand for the Arkansas.

LEGHORN STRAW.

TO THE EDITOR OF THE NEW ENGLAND FARMER.

SIR—I send you for publication in your paper. (if it shall be found worthy a place,) some account of the wheat, from which the Leghorn hats are made. In the summer of 1821, I wrote to Mr. Appleton, our Consul at Leghorn, requesting him to give me some account of the straw, from which these bonnets are made; owing to an accident, my letter did not go by the vessel which I intended, and I did not expect it to go by any other—but the letter found its way to Italy, and this gentleman, in the most obliging and attentive manner, caused four bushels of Tuscany wheat, with an account of the mode of cultivation and preparation to be forwarded to me; it came by the way of Providence, and so late in the spring, that I was not able to have it distributed and cultivated, with that care and attention which I was desirous it might be. Mr. Appleton's account of the cultivation of Leghorn straw, and the preparation of it for manufacture, is contained in the following extracts from his letter to me.

"LEGHORN, 15th Sept. 1821.

"SIR—The letter you honored me with, was handed me in the course of last month. I immediately wrote to a friend at Castel Fiorentino to obtain the best seed for straw, but it was too early, which will apologise for not availing myself of the vessel you mentioned. I have now procured four bushels, and forward it to you by the brig Mary, of Providence, Capt. Dagget.—You have my ardent wishes for the success of the trial of this grain; but should you find you are still deficient of any information I can furnish, have the goodness to inform me, and be assured it will exceedingly increase my gratification if I should be able to remove every obstacle to the attainment of your views.

The grain which produces the straw worked into hats at Tuscany, is here called "Marzola," or March Grain. It is sown in March and arrives at its appropriate maturity, for the manufacturing of hats, from the twentieth to the thirtieth of June. It is sown in somewhat dry and elevated grounds, which should be broken three, four, or more days successively, to prepare it for planting the seed, when four times as much seed, as is usually planted of wheat intended for bread, should be planted on the same space of ground; for the thicker it is planted, the finer will be the straw. It is here gathered when the plant is in blossom, which as I have before said, is in Tuscany towards the end of June.—When it has risen to this state of maturity, it is about eighteen inches high; it is then pulled up by the roots and left two or three days on dry ground to air, after which each straw is taken up separately and stripped of a thin pelticle which covers it, beginning at the top and so down to the first joint, above the surface of the ground; the first joint and root are broken off, and are of no value. After this operation is performed on each straw, they are tied into small bundles of about four inches diameter; and immediately after, in order to bleach them, the bundles which are slightly bound with a straw, are opened at both ends in the form of a fan, laid on a field of grass to take the nightly dew, and thus left for two months, carefully observing to put them under cover whenever there is an appearance of rain, as the latter is prejudi-

cial. When bleached, they are opened and separated into three qualities, which form the superfine, fine, and ordinary. The first is not only formed from the finest straws, but should be of the same size and color, and without spots or stains; from these last are fabricated hats even to No. 100, which signifies 100 circles on the brim, which are easily counted. The straw when prepared is carefully preserved in dry chambers, when it is good for two or even for three years use. The working the straw into hats commences in September. The grounds in Tuscany, in which is produced this straw, are from ten to twenty miles from Florence, and lie in lat. 43.46. The thermometer of Fahrenheit rarely rises above 83, and there are not ten days in winter when it descends to freezing point, or 32. I have not observed in twenty-three years of my residence here, more than three or four times the thermometer at five degrees below congelation; and this extreme at most for a single day. From November to the end of February, the thermometer, with the exception I have mentioned, marks from 40 to 60. In the last six years I have not seen any snow on the level country, except about one inch for two or three days the last winter, while there is no example of the freezing of grounds. Having been absent from my native country for five and thirty years, I shall not hazard an opinion if the climate of Massachusetts is congenial to the growth of this plant; but as I am informed it succeeds in the plains of Lombardy and near to the Alps, I do not despair of a proportionate success in your state. In the villages where the straw hats are fabricated, it is the employment of all the inhabitants, from the oldest men and women down to children of three or four years. It is likewise their amusement, for they carry a little bunch into their afternoon or evening assemblage, and it is worked with as much apparent inattention as our women knit in America. On one side of the waist is fastened the little bunch of straw, and on the other the strands they have braided. They have brought this interesting and pleasing employment to such perfection, that I have seen hats which were bought at two hundred dollars each."

It was not until the middle of April, that this wheat came to Boston. I caused it to be distributed; one bushel to Leman Stone, Esq. of Derby, the President of the Agricultural Society for the county of N. Haven; from this parcel I have not received any account, but hope soon to have a full report from that quarter; other parcels went to the states of Maine, N. Hampshire, Vermont, and in one instance to N. York; other small parcels were disposed of in my own immediate neighborhood. I have received but few accounts of the culture of this plant, but from my own observations upon what I saw growing, I am fully in the belief that this grain can be cultivated in New England, and the manufacture of hats eventually carried to as great perfection, as it has attained in Tuscany.

The finest and best straw which I have seen, was cultivated by Doctor M. Spaulding of Amherst, N. H. (an ingenious and scientific agriculturist;) an account of his mode is contained in the following extract from his letter to me on the subject, to wit:—"I sowed the wheat on the 20th of April, 1822, just as I received it, without any preparation, except mixing with it a little air slacked lime. The quantity of seed

put upon the ground, was agreeable to the instructions which you had published in the newspapers. The land was a light, dry, sandy loam soil, rather elevated, and not entirely free from stones. It had been planted with potatoes the year before. The wheat or straw [from forgetfulness] stood a few days longer in the field, before gathering, than the newspaper instructions would seem to allow; no peculiar attention was paid to the preparation of the ground, more than is common for the sowing of oats, or any other spring grain. I am of opinion that you sowed yours upon too rich a soil, that my success was not owing to superior skill, but inferior soil." The next best sample which I saw was cultivated by John Hubbard, a farmer in Groton. His account is, that towards the last of April, he sowed one pint of the wheat which came from Tuscany, upon a piece of ground that had been planted the preceding year; that in the centre of the field, which he sowed with oats, he staked out a small square, taking care not to carry any of the oats into it, and sowed his wheat about four times as thick as is sown to raise spring wheat; being thus shaded on the sides by the oats, it grew very even, was but very little rusted, that he reaped some part of it, and had about two quarts of grain, which he thinks equal in quality to the seed he sowed; that he saved a parcel of the straw, which an aged mother prepared agreeable to Mr. Appleton's directions, and from which she made a hat, of a quality about equal to No. 10, [or 10 rims to a good sized brim,] the straw appeared as tough and firm as the imported hats.

In most cases, where I saw the wheat growing, it appeared to have been planted in rows, on a rich soil, and instead of attaining the height of 18 inches, as it does in Tuscany, actually grew upwards of 4 feet, and was too coarse for use, though it retained a supple texture, and it appeared to me might well have been wrought into carpets. I should recommend to those who intend to cultivate this wheat, to have one field for the purpose of raising seed, where the preparation of the ground should be like that which good cultivators of spring wheat use, and I am clearly of opinion, that the earlier it is sown in the spring the better will be the chance of a crop.

Those who cultivate for the straw had better sow broad cast, and eight times as thick as is usually sown for bread-stuff; the ground should be a light loam, without any manure. It is well known to all farmers, that the thicker any grain, or grass, flax or other plants, are sown, the finer will be the straw; and a gravelly knoll, such as we sometimes observe in a rye field, where there is a slender straw, almost without heads, appears to be well adapted to produce fine straw, and where the field or patch of ground can be surrounded with other grain (so as not to have any outside rows,) the straw will be brighter, and less liable to rust.

How far the process used by the straw-braiders in Massachusetts, of bleaching with brimstone, can be successfully applied to the Leghorn straw, in preference to the slow process used in Tuscany, of bleaching by the dew, time and experience can determine.

The manufacture of straw in the vicinity where I reside, is annually becoming a more important branch of industry, which is wholly

pared in families, every part of the manufacture being domestic. It is a well known fact, in many towns and villages, the proceeds of the manufacture of straw exceeds the value of the surplus beef, pork, butter, grain and so forth that is sent to market. Hence the advantages which will result from the introduction of a more firm and durable straw than rye, in which the labor of so many persons can be so well bestowed, are continually becoming more obvious.

I am, sir, your obedient servant,
SAMUEL DANA.

Wroton, Jan. 1823.

REMARKS BY THE EDITOR.

We fully concur with the Hon. writer of the preceding article, with regard to the probable public benefit derived from the cultivation of the kind of wheat we have described, and the introduction of the manufacture of Leghorn bonnets, &c. We would, however, suggest the propriety of the application of a small quantity of lime, finely pulverized, to the soil on which is proposed to raise this, as well as any other kind of wheat, unless it is sown on lime stone land. In Tussey, we are told, that the soil on which this wheat is raised, is selected among calcareous [lime stone] hills. Hence, it is said by chemists, constitutes a part of the soil, as well as of the berry of wheat. If lime is native in the soil, nor supplied by art, we do not know how the wheat-plant, which is constituted in part of lime, can possibly be matured. The lime may be either caustic or quick lime, pounded lime stone, or lime mortar, or plaster reduced to fine powder. As the vigorous or large growth of wheat straw, however, is not wished for, a small quantity of lime would properly answer. It is hardly necessary to observe that caustic lime is used it should not be applied while plants are growing. See N. E. Farmer, No. 12, p. 92; No. 18, p. 139; No. 24, p. 192.

FACTS AND OBSERVATIONS RELATING TO RICULTURE & DOMESTIC ECONOMY.

FOR THE NEW ENGLAND FARMER.

On Neat Cattle.

(Continued from p. 204.)

Among the most remarkable breeds of animals of the Bos, or Neat Cattle genus, are the Old Cattle of Great Britain. This breed is at present to be met with in some gentlemen's parks, where they are said to remain in their original wild state. The following account of them is given by Mr. Bailey, an English writer: "Their color is invariably of a creamy white; muzzle, black; the whole of the inside of the ear, and about one third of the outside, from the tip, downward, red; horns white, with black tips, very fine, and bent upward; some of the bulls have a thin, upright mane, about an inch and an half, or two inches long. The weight of the oxen is from 35 to 45 stone, and the cows from 25 to 35 stone, the four quarters, 14 lb. to the stone. The beef is finely marbled, and of an excellent flavor.

"From the nature of their pasture, and the frequent agitation they are put to by the curiosity of strangers, it is scarce to be expected they would get very fat; yet the six year old oxen are generally, very good beef, from whence it may be fairly supposed, that in proper situations they would feed well.

"At the first appearance of any person, they start off in full gallop, and, at about the distance

of two hundred yards, make a whirl round and come boldly up again, tossing their heads in a menacing manner; on a sudden, they make a full stop at the distance of forty or fifty yards, looking wildly at the object of their surprise; but upon the least motion being made, they all again turn round, and fly off with equal speed, but not to the same distance, forming a shorter circle, and again returning with a bolder and more threatening aspect than before; they approach much nearer, probably within thirty yards, when they again make another stand, and again fly off; this they do several times, shortening their distance, and advancing nearer and nearer, till they come within such a short distance, that people think it most prudent to leave them, not choosing to provoke them further.

"The mode of killing them, was, perhaps, the only modern remains of the grandeur of ancient hunting. On notice being given that a wild bull would be killed on a certain day, the inhabitants of the neighborhood came mounted, and armed with guns, &c.; sometimes to the amount of an hundred horse, and four or five hundred foot, who stood upon walls, or got into trees, while the horsemen rode off the bull from the rest of the herd, till he stood at bay, when a marksman dismounted and shot him. At some of these huntings, twenty or thirty shots have been fired, before he was subdued. On such occasions, the bleeding victim grew desperately furious from the smarting of his wounds, and the shouts of savage joy that were echoed on every side. But from the number of accidents that happened, this dangerous mode has been but little practiced of late years, the park keeper alone generally shooting them with a rifle gun at one shot.

"When the cows calve, they hide their calves for a week or ten days, in some sequestered situation, and go and suckle them two or three times a day. If any person comes near their calves, they clap their heads close to the ground, and lie like a hare in form, to hide themselves; this is a proof of their native wildness, and is corroborated by the following circumstance, which happened to the writer of this narrative, who found a hidden calf, two days old, very lean, and very weak: on stroking its head, it got up, pawed two or three times like an old bull, bellowed very loud, stepped back a few steps, and bolted at his legs with all its force; it then began to paw again, bellowed, stepped back, and bolted as before; but knowing its intention, and stepping aside, it missed him, fell, and was so very weak, that it could not rise, though it made several efforts; but it had done enough, the whole herd were alarmed, and coming to its rescue, obliged him to retire; for the dams will allow no person to touch their calves without attacking them with impetuous ferocity."

The foregoing are some of the most remarkable breeds of neat cattle, where the varieties are most strongly marked. To enumerate all the kinds which are treated of by British and other foreign writers, would require a large volume. We shall, therefore, omit for the present, any farther notice of any particular breed of neat cattle, and proceed to such facts and observations as apply to all the varieties of this most useful quadruped, which the art of man has ever brought within the sphere of his dominion.

"In point of utility and profit, no animal can stand in competition with the cow; a sentiment which has been universal from the primitive ages, and which, to this moment, has lost nothing of its force or truth. Her milk, so indispensable to civilized man, is her most precious product, and of which the value, in various forms, is so universally and feelingly understood. Of this real liquor of life, more valuable than the richest wines, the cow will give the amount of many times her weight in the course of a year, and every year, that she continues in a constant state of reproduction, unto the end of life, when her last gilt to man is food of the most substantial kind, and so many articles of various uses, that no part of her carcase need be wasted or lost; the worth of these replaces, probably doubles her original cost."

For some of the marks of a good cow, the reader is referred to No. 3, page 21, of the New England Farmer. To the signs there specified, may be added the following. "The indications of copious milking, in whatever species of cows, are a capacious and thin udder, large teats, with a large and distinct milk-vein; these are generally accompanied with a fineness of the head and chops; thinness of the neck, and somewhat gaunt and meagre appearance of body, promising no great tendency to fatten. In common when a large and fine udder is found, sufficient milking need not be doubted."

The cow goes nine months with young, and rarely produces but one calf at a time.—Where the herd is extensive, an account should always be kept of the time when each cow goes to the male, that she may be dried off at a reasonable distance of time before the gestation be completed. The most proper time for the cow to be dried off, according to a writer in Rees' Cyclopaedia, is about two months before her calving, when she ought to be suffered to lie quiet, and not be brought up with the other cows at the milking or suckling times; for if a cow be continued in milk nearer to the time of calving than two months, it will not only greatly injure her future progeny, by rendering it weakly and stunted, but will have an ill effect on the health of the cow herself. It is, however, said by others, that when cows are well fed, they may be continued in milk till within a week or two of their calving, without suffering any injury from it. But, in general way, it is thought best to let them go dry for a month, or six weeks, or more, according to their condition, in order to the more fully recruiting their strength. But where only one or two cows are kept for the use of a family, it may be well to know that, by good feeding, they may be continued in milk till within ten days or a fortnight of the time of their calving, without much inconvenience or injury to the animal.

During the winter season, the cows which are expected shortly to calve, ought to be lodged every night under some convenient shelter, for a week or two previous to calving; as it may be the means of saving the life of the calf and perhaps of the dam likewise. If the cow catches cold by calving abroad, which may be perceived by her trembling joints, and her refusal of food, she ought immediately to be housed under a warm shed, or other building, together

* Lawrence on Neat Cattle.

† Generally about from 270 to 300 days. See New England Farmer No. 18, p. 138.

er with her calf, and treated as heretofore directed in cases of cold.* She should be allowed the best and sweetest hay, and not suffered to drink any cold water.

The milch cow is generally in her prime at five years old, and will commonly continue in a good milking state till ten years of age, or upwards; but this depends greatly on the constitution of the animal; some cows, like other animals, exhibiting marks of old age, much earlier than others. They can, however, seldom be kept with advantage to such an age.

* See New England Farmer, No. 23, p. 177.

(TO BE CONTINUED.)

FOR THE NEW ENGLAND FARMER.

A QUESTION IN PRACTICAL SURVEYING.

There was a wealthy farmer had an extensive pasture for his calves, geese, &c. It was bounded by seven very irregular sides and angles—on one of the lines there was a pond or spring head—in his will he left it to his two sons to be equally divided in two parts, by one straight line drawn through the spring for both parts to have water. I demand the rule by which it may be most readily done, either by calculation or *Semi Geometry*, and if the answer is not made in three months after this is published, life and health permitting, I will endeavor to shew how it may be done by calculations, or far more readily by *Semi Geometry*, if I could have correct plates engraved.

SAMUEL PRESTON.

Stockport, Pa. Jan. 13, 1823.

THE FARMER.

BOSTON:—SATURDAY, FEB. 1, 1823.

The attention of our readers is requested to an interesting article (page 212 of our present No.) on the subject of *TUSCANY WHEAT*, imported by the Hon. Mr. Dana. Samples of the straw, the braid, and the wheat, may be seen at the office of the New England Farmer. Seed wheat of this kind may be obtained in small parcels, at the store of Mr. Joseph Bridge, No. 25, Court-street.

ON SAVING AND MAKING THE MOST OF MANURE.

(Continued from page 191.)

In our last number on this subject, we showed that actual experiment would appear to warrant a conclusion that the *urine* of neat cattle, if properly collected, preserved, and applied, would furnish more manure or food for plants, in the proportion of 7 to 6, than the solid evacuations of the same cattle. And that “in five months, each cow discharges urine, which, when absorbed by loam, furnishes manure of the richest quality, and most durable effect, for half an acre of ground.” If this be true in its full extent, it is certainly a great discovery; and perhaps of as much importance to farmers, as the introduction of Plaster of Paris, clover, or any other of the artificial grasses. We style it a *discovery*, because if cultivators in general, had ever been apprised of the value of this substance, it cannot well be credited that they would let it be wasted, or worse than wasted; serving to corrupt the air instead of feeding the crops of the farmer, and giving him poison, when, with a little attention, it might furnish him with food. And here, before we advance

any further on the regular highway of our discourse, we beg to be indulged in the liberty of stepping aside, in a short digression, (or what the poets call episode) on the value of manure in general.

When we reflect that the old adage “*manure is the mother of corn*” is not only true, but that we may carry the sentiment still farther, and say that manure is the parent of all profitable vegetation, we cannot but be deeply impressed with the importance of embracing every practicable and economical method of saving and making the most of so precious a product. By proper attention to the accumulation and application of manure, our lands instead of *wearing out*, would *improve* under the hand of the cultivator, and produce crops greater in quantity, and superior in quality to those which grew upon them when first reclaimed by the axe and the harrow from a state of nature. Our hardy yeomen instead of leaving the land of their fathers to waste their lives in the wildernesses of the West, might remain at home contented and happy, in possession of all the privileges and comforts of cultivated society, together with as much affluence as is necessary for the pursuit and enjoyment of happiness. By increasing our manure, we increase our crops, and by increasing our crops, we accumulate manure. The cause not only produces the effect, but the effect gives additional efficiency to the cause.—The farmer who neglects to preserve and make a judicious use of his manure, will not only starve his next succeeding crops, but weakens or destroys the first link in his whole chain of crops. His first step is down hill, and having begun to back slide, every day renders his progress, in the way of good and profitable farming, more and more difficult.

But to return and resume the thread of our Essays. Notwithstanding the experiments of Mr. Alexander, detailed in our former observations, would seem to lead to a belief that the urine of neat stock is of *more* value than their dung and litter, there are some things to be thought of, which would make this at least a disputable, if not a doubtful conclusion. Sir John Sinclair, although he allows this substance to be useful, does not rate it so high as would seem to be its value, according to the result of Mr. Alexander's experiments, and the remarks thereon, which we have quoted from the “*Letters of Agricola*.” In the code of Agriculture (page 202,) it is stated that “every sort of urine contains the essential elements of vegetables in a state of solution. The urine of a horse, being so much lighter, would be more valuable than its dung, if both were conveyed to any distance. The urine of six cows or horses will enrich a quantity of earth sufficient to top-dress one English acre of grass land; and as it would require four pounds worth of dung to perform the same operation, the urine of a cow or horse is worth about 12s. per annum, allowing 8s. per acre as the expense of preparing the compost.” Perhaps, moreover, the whole of the urine may not be lost, if it is not separated from the solid manure. If the cattle are well littered, a part of the liquids will be absorbed by the straw or other litter, and a part, mixing with the excrementitious matter, may increase the strength and efficacy of the latter. This may be a useful result when the dung is intended for one of the ingredients of compost, and is to be *diluted* (if

we may use the expression in this case) in earth. The excrements of cattle, however, kept under cover, (as they should be till applied to the soil,) are a manure sufficiently powerful. To add urine to dung, which has neither dried by the sun and air, nor wasted by evaporation, would not, in our opinion, be the most economical method of disposing of the former substance. Fresh urine, when undiluted, will sometimes destroy vegetables, and when it is added to the dung, and applied to plants, it affords them no nutriment in too concentrated a state. Feed plants with a substance of this kind, would be like attempting to nourish animals with pure sugar, or to stimulate them with unmedicated alcohol. For these reasons, as well as for the sake of preventing putrescent fermentation, we are fully of opinion that the liquid ought to be kept separate from the solid parts of cattle manure.

With regard to the mode in which the separation of each of these substances can be most economically effected, and both the solid and liquid parts preserved and applied in the most effectual manner, it would be difficult to lay down general rules, applicable to all cases. We will, however, suggest a few hints for the consideration of practical farmers.

1st. Loam, peat, or other earth may be deposited under horse and cow stables, and the liquid part of the manure allowed to filter through cracks or small holes bored in the floor; which for such purpose should be composed of plank easily taken up. This method has been adopted by Mr. Williston, of Brookfield, Mass. as stated in the *Agricultural Repository*, vol. iv. p. 193. In this way, however, we should apprehend the liquid matter would not spread evenly, nor impregnate the earth below equally.

2d. There may be a gutter or offset fixed behind the cattle, consisting of boards or planks with cracks, or crevices between them, to permit the liquid matter to descend. Below this may be a pit or trench, which may, as occasion requires, be filled with earth to receive whatever flows from the stable. But here the same objection would apply, which is stated in the mentioned method. In either case, the top of the earth or loam might become encrusted in such a manner, that the liquid would stand on the surface, and form a noisome and fœtid pool, instead of incorporating with the earth. By these methods, however, have been adopted as we learn, with some degree of success.

3d. Barrels, hogsheads or other proper vessels may be sunk at each corner of the stable or cow house, and channels or gutters lead to them, so that they may receive the drainings from the cattle. These may be emptied as occasion requires, and incorporated with loam or other proper substance, which should be under cover, so as to make a rich compost. Or, in the proper season, the contents of these cisterns may be used to water vegetables either by means of a gardener's watering pot, or by a hogshead attached to a box, full of holes, the whole drawn by oxen, and the liquor sprinkled over the ground as they advance, according to the method pursued by Mr. Smith, as stated in his address published in the *New England Farmer*, No. 44. Both these last mentioned modes may be adopted; the liquid applied to manure, grass, or other vegetables in the proper season, and when not wanted for that purpose, may be ble-

and incorporated with loam. The loam may be kept under cover for that purpose, and with aid of a hoe, or garden rake, may be easily equally impregnated with the salts, &c. which were held in solution by the liquid applied. (TO BE CONTINUED.)

FARMER SUMMARY OF NEWS.

CONGRESS.—There appears to be but little business completed by that body which is of general interest. Bills are read and committed, and bills to pre-debtors being committed seem to be the order of the day. Various details of matters and things relating to A. B. & C. which to give in detail would "a tired pen require" are presented, debated, and some probably be decided upon, either during the present or future session. By a communication from the Secretary of the Treasury, it appears that the imports for the year amounted to \$83,241,541, and the exports \$2,160,231. The bill for the disbursement of public money is still before the Senate. Mr. Plumer of N. H. has reported a bill for allowing costs to patentees, executors, &c. where the sum recovered shall not be less than fifty dollars. A committee have reported it is not expedient to legislate on the subject of vaccination. Messrs. Gates and Seaton, proprietors of the Boston Intelligencer, complained to the House that honesty as printers had been impeached by an article in the Washington Republican. This relates to a thing, thought to implicate Mr. Crawford, relative to the Banks to the westward, but of which it becomes us to be mute, as the affair is before a committee of the House. Whenever it assumes a tangible, matter of shape, we shall put our hand upon it.

MASSACHUSETTS LEGISLATURE.—This honorable body appears to be chiefly occupied in concerns of a private nature. A number of companies have been incorporated of a religious and secular nature. Among the latter is the "Boston Gas Light Company," who will probably shed light in our path. To accomplish this and we do not then walk in the way of rectitude it will not be their fault. A petition has been exhibited for converting Amherst Academy into a College, but the petitioners have had leave to withdraw their petition. A bill has passed the House, which provides for the payment of one per centum on amount of all goods, wares and merchandise, and half per centum on the amount of all real estate at auction in this state. The bill respecting public order and religious freedom has passed the House as 67, nays 41.

FOREIGN.—Letters from Smyrna, as late as the 10th of Nov. confirm the account of the return of the Greek fleet to Tenedos, but state nothing of any serious engagement with the Greek fleet. The defeat of the Turkish army, which had invaded the Morea, is confirmed; but the remains of it, at the last date, posted in the citadel of Corinth, and besieged by the Greeks. The late arrival from Europe at New York has brought intelligence from London to the 9th Dec. By this it appears that the British and Portuguese are determined to remain neutral in the dispute between France and Spain; and that the Cortes are determined to reject any proposition for modifying their constitution. The war still continued between Persia and Turkey, it was reported that the Persians were within a few hours march of Bagdad. There was no prospect of war between Russia and Turkey.

At Mexico public affairs wear a revolutionary aspect, the reign of Iturbide seems near a period. General Anna has raised the standard of revolution, and published a proclamation replete with promises of patriotism. On the 6th of Dec. three days previous to his proclamation, the general sent a letter to his military master, advising him to abdicate, and intimating that he could enforce his reasons with two thousand muskets. The Fort of San Ullao has surrendered to the troops of Iturbide. Affairs in Havana appear to be settling into a quiet and commercial state.

The late New Orleans paper says, "a rumor has been in circulation here, that the British are about embarking seven black regiments from their islands in the West Indies, in order to take possession of

such parts of the Island of Cuba as have become notorious for piracy."

A school has been established at Edinburgh, for imparting to mechanics the philosophical principles of their respective occupations; and a similar school at Glasgow, under Dr. Ure, who lectures on the various branches of science connected with the arts.

The Dey of Algiers has issued a decree that every bachelor of more than 20 years of age, shall be flogged in public every day till he takes a wife.

DOMESTIC.—On the night of the 12th ult. the house of Mr. Nathan Ross, Jr. of Anson, Maine, was consumed by fire, and Mrs. Ross, with three children, were burnt to death.—On the 9th ult. a young woman of Charleston, S. C. died in consequence of injury sustained by her clothes taking fire; her sister was materially injured in attempting her rescue.—The dwelling house of Mr. Calvin Briggs, of Putney, Vt. was consumed by fire on the night of the 23d ult. together with the household furniture, nearly all Mr. B.'s papers, some money, about \$400 worth of leather, and all the provisions and clothing for his family.—A factory in Vernon, Conn. owned by a Mr. Abbot, was destroyed by fire, on the 24th ult.—Several stores, containing valuable merchandize, among which was 400 bales of cotton, crates of crockery, &c. were consumed at Philadelphia last week; supposed to be the work of an incendiary.

The maniac Trask, who lately broke jail in Boston, has been taken in the barn of the Hon. Christopher Gore, in Waltham, without resistance, and returned to the jail from whence he escaped. He had on the iron collar and fetters, with which he was encumbered previous to his escape.

The House of Assembly of New-York has passed an act to abolish Imprisonment for Debt.

State Prison.—According to a report for the year ending on the 30th September last, the average number of convicts in the prison was about 275. The number received during the year, was 91—the number discharged was 83, of whom 14 only were pardoned—10 died, and one escaped. The amount received from the sales of stone was \$23,796; the amount for labor of shoemakers, weavers, brush-makers, &c. \$9,344. The balance against the prison, on the accounts of the year, was \$8,371, besides the salaries of the directors, physicians, chaplain, and warden, amounting to \$2,900.

Mechanical Invention.—A Clover Mill has been erected at Poughkeepsie, N. Y. under the direction of Mr. Boulton, which is highly spoken of, as calculated to separate all the seed from the chaff, and, at the same time, leave the former remarkably clean and handsome. The machinery is described as very simple, the cost trifling; and, if generally used by the farmers of Dutchess county, it is calculated that, instead of purchasing their clover seed, grown in other parts of the Union, they will be able in a few years to raise a sufficient supply for themselves.—*N. Y. Mechanics' Gaz.*

TO CORRESPONDENTS.

We have received at too late a period for insertion in the present paper a very valuable communication from a gentleman in Worcester, which we shall publish in our next. The delay in our reception of the manuscript, we understand, was caused by its contents having been communicated to a number of gentlemen, belonging to the Legislature, for purposes connected with the interests of agriculture.

The paper from a gentleman from Newton, on the subject of pruning fruit trees, &c. is received, and shall soon be published.

LAW OF PATENTS FOR NEW INVENTIONS.

CHARLES EWER, No. 51, Cornhill, Boston, has just published, "An Essay on the Law of Patents for New Inventions." By Thomas G. Fessenden, Counsellor at Law. The second edition, with large additions, corrected and improved by the author."

This work is adapted as well to the use of the Artist and Mechanic as of the Lawyer. The whole was carefully reviewed in manuscript, and recommended by gentlemen of the first legal talents in New England.—The Hon. Judge Story, in a letter to the author, observed, "I have no hesitation in expressing my opinion that the book will be highly useful to all persons, who are engaged in obtaining patents, or in vindicating them in Courts of Justice. The manuscript contains a

collection of all the cases, on the subject of Patents, within my knowledge; and the principles contained in them are detailed with accuracy and fulness in the Summary at the conclusion. I know of no work so comprehensive as yours on the subject; and it may be relied on as a safe guide."

The Hon. *William Prescott*, and the Hon. *Daniel Webster*, after perusing the manuscript stated their opinion as follows: "This edition is a great improvement on the first, and we think it will be a valuable and useful book to the profession, as it contains the statutes, and states, we believe accurately, all, or nearly all the decisions, which have been made on a branch of law, daily growing more interesting and important."

George Sullivan, Esq. a gentleman who has paid much attention to this branch of law, has likewise favored the work with a recommendation, from which the following is an extract:

"Your method of arranging all the decisions in the order of an analytical digest of the several requirements and provisions of our statutes for granting patents, puts the lawyer at once in possession of the judicial construction of the statutes; while your synthetic Summary, far more extended and comprehensive than in the former edition, places within reach of the mechanic a sure means of judging whether his invention is a fit subject for a patent; what is required of him by the statute in order to obtain his patent; and what provisions are enacted for securing to himself and heirs, his meritorious privilege." Feb. 1.

PRICES OF COUNTRY PRODUCE, &c.

[Revised and corrected every Friday.]

		FROM	TO
		D. C.	D. C.
ASHES, pot, 1st qual.	ton.	145 00	150 00
pearl do.		150 00	155 00
BEANS, white,	bush	90	95
BEEF, mess, 200 cwt.	bbl.	9 50	10
cargo, No. 1.		8 50	9
" No. 2.		7 50	8 00
BUTTER, inspect. 1st qual.	lb.	14	15
" 2d qual.		12	13
small kegs, family,		16	17
CHEESE, new milk		7	9
FLAX		8	9
FLAX SEED	bush	1 00	1 10
FLOUR, Baltimore, superfine,	bbl.	7 25	7 50
Genessee		7 50	
Rye, best		4 25	4 50
GRAIN, Rye	bush	25	30
Corn		72	75
Oats		45	48
HOGS' LARD, 1st sort	lb.	9	10
HOPS, No. 1.		11	12
LIME,	cask	1 25	1 50
OIL, Linseed, American	gal.	65	70
PLASTER PARIS	ton.	3 00	3 25
PORK, Navy Mess	bbl.	12 00	12 50
Bone Middlings		14 50	15 00
Cargo, No. 1.		12 00	12 50
Cargo, No. 2.		11 00	11 50
SEEDS, Herd's Grass	bush	2 00	2 25
Clover	lb.	8	9
WOOL, Merino, full blood, washed		65	75
do. 7-8 & 15-16 do.		60	65
do. 3-5 do.		50	54
do. 1-2 do.		46	48
do. 1-4 do.		42	44
Native	do.	37	40
Pulled, Lamb's, 1st sort		58	60
do. Spinning, 1st sort		50	

PROVISION MARKET.

BEEF, best pieces	lb.	8	9
PORK, fresh		5	6
VEAL,		7	8
MUTTON,		3	7
POULTRY,		5	8
BUTTER, keg & tub		16	17
lump, best		22	24
EGGS,	doz.	22	25
MEAL, Rye,	bush	90	
Indian,		80	
POTATOES,		37	
CIDER, liquor,	bbl.	1 50	
HAY, best,	ton.	22 00	24 00

CEREMONY; Or, more Compliments than Courtesy.

"Sir, will you please to walk before?"
 No, pray Sir, you are next the door.
 "Upon mine honor, I'll not stir—"
 Sir, I'm at home, consider Sir,—
 "Excuse me, Sir, I'll not go first,"
 Well, if I must, why then I must—
 But yet I wish I could evade it—
 'Tis strangely clownish, be persuaded:
 Go forward cits! go forward, squires,
 Nor scruple each, what each admires.
 Life squares not, friends, with your proceeding;
 It flies, while you display your breeding;
 Such breeding as one's granam preaches,
 Or some old dancing-master teaches.
 O, for some rude, tumultuous fellow
 Half crazy, or at least half mellow,
 To come behind you unawares
 And fairly push you both down stairs!
 But death's at hand, let me advise ye
 Go forward, friends, or he'll surprise ye.

From the New York Statesman.

NORTHERN COTTON.

A valued friend and correspondent, about 12 months since, wrote several essays which were inserted in the Statesman under the signature of "Agricola," on the cultivation of cotton in this vicinity, and urging upon our agriculturists to make the attempt. The idea that this plant, a native of a warm and sunny climate, would vegetate in our bleak northern latitude, or at most do more than spring from the ground and perish before a branch would put forth, was perfectly novel, and considered by many, notwithstanding the ingenious arguments of "Agricola," as entirely chimerical. Our correspondent was so confident in his belief, that he procured at his own expense, a number of barrels of seed from the south, which were deposited with us for gratuitous distribution. The result of several experiments has already been stated, and specimens of cotton of the growth of the past year, rendered it certain that this plant could be advantageously cultivated in this climate, were we assured that the frost would appear no earlier than it did the last season. But we have now the satisfaction of communicating to the public the result of an experiment, affording abundant evidence of the important fact, that cotton can be raised with us, not only without fear of injury from the frost, but that it is one of the most certain crops which can be produced.

We have seen this morning, at the Auction Room of David Dunham, Esq. the crop of cotton which grew in his garden at his seat on Long Island, and which was picked on the 5th, 14th, and 25th, of December and 14th of the present month. It is all of an excellent quality, in every respect equal to any of the numerous specimens we have seen which were picked before the frost had touched the plant. We have little doubt, the discovery that frost does not prevent this plant, after it has arrived at a certain stage, from yielding the desired crop, will be productive of important result to this section of the country, and we take pleasure in presenting the following interesting memorandum obtained from Mr. Dunham.

"The cotton here exhibited was raised in my garden on Long-Island from about 250 to 300 plants; the seeds procured from the editors of

the Statesman last spring, and by them obtained from a gentleman friendly to agriculture. The seeds were put in the ground on the border of the garden the early part of May, but by inattention, the sea island and upland were planted promiscuously; six, eight and ten seeds were occasionally put into a hill, when on their coming up, the stalks were found to be too thick, and the surplus plants were transplanted into an open field with some corn; immediately after which we had a terrible drought, and the plants were so much stunned that they came to little or nothing. In the border of the garden there were many flowers planted, which must rather have impeded the growth of the cotton, for some of the plants were almost hidden by shade. In August the plants began to flower, and they grew very luxuriantly till the first frost, which completely checked all further vegetation. At this time there had been but one picking, on the 20th Oct. The gardener was about to pull up and throw away the residue of the plants, as being of no value, but was prevented, and on the 1st of Nov. as fine a picking was made as the one previous. The 20th of the same month another picking, on the 5th, 14th and 25th days of Dec. three other pickings, and on the 14th of Jan. the present month, a still further picking; and a few more pods, ripe, may be found towards the first of February.

"The curiosity about the growth of cotton in this climate appears to be this,—till now it was supposed that our season was not long enough to raise cotton, and that immediately after the frost appeared no more could be counted on; but from the experiment here adduced, it will be seen, that so far from the frost destroying the vital parts of vegetation, it only stops its progress, leaving so much nourishment in the plant, that with the aid of dry, cold weather, every pod of any size, matures, expands and opens, like a chesnut burr; and the cotton, in point of staple and every thing else relating thereto, is fully equal to that produced before the frost made its appearance, with the single exception that the pods are not so large, and appear to be stopped in the growth, immediately after frost appears.

"To every person wishing to make the experiment, the writer would recommend that the ground be prepared as for corn; that the seeds be put into the hills about the same distance apart, and that not more than four or five stalks be suffered to remain in each hill; that the cotton be ploughed and hoed, in the same manner as corn, and if found to grow too luxuriantly, nip off the tops, and it will be found to yield more pods. It should never be suffered to grow above from three to four feet high; and be sure to plant early, as it is better to run the risk of having the first crop cut off with the spring frost, than be too late in planting; for if you can only get your plants well stocked with pods before the fall frosts set in, you need not be alarmed but that you will gather a plentiful crop.

DAVID DUNHAM.

A farmer in New York has raised the past year, from TWELVE old ones, four hundred and forty Turkeys.

A large eagle was lately shot from the top of a tree on the bank of the Delaware, having a fox trap attached to one foot, which had been missing from its place for five days or more.

An equivocal Epithet.—It is common, no days, to say the character of such a man is advantageously known. Query, does it in advantage to the individual spoken of, or others?—*Charleston Courier.*

A blind man on leaving a company of ladies said he was sure there was one present who had a fine set of teeth, for she kept up a continual laugh for two hours.

An Irishman being asked, how do you grow potatoes in Ireland? Faith, says he, we grow 'em at all, for when we want 'em we get 'em.

NEW SYSTEM OF SHOEING HORSES.

JUST published, and for sale at the principal stores in this city, A NEW SYSTEM OF SHOEING HORSES, by JOSEPH GOODWIN, Veterinary Surgeon to His Majesty George IV. and Member of the Royal College of Surgeons; including Observations on Bleeding and the Pulse, a Concise View of the Anatomy of the Foot, Notes, Remarks, &c. Jan.

AMERICAN MANUFACTURED PAPER.

HOLBROOK & FESSENDEN manufacture at their Paper Mill, in Brattleborough, (Vt.) WRITING PAPER of an excellent quality, and much superior to any of a correspondent price imported. They also manufacture Foolscap for \$4.50 a ream, not inferior to English paper which costs \$9.00 a ream. Their LETTER PAPER is also fine, and sold cheaper than imported paper of similar sort. Specimens may be seen at Mr. Loring's Bookstore, No. 1, South Row. Jan.

THE MENTOR AND LADIES' BOUQUET.

NATHANIEL DEARBORN respectfully announces to the public, his intention of issuing a Work, under the title of The Mentor and Ladies' Bouquet, provided their patronage should authorize the attempt.

This determination has been taken with the sanction of many friends, among whom are some ingenious writers, which are enlisted for this cause;—it has also been strengthened by the circumstance that the editor's compositions have been deemed of sufficient value, generally, to be republished, which has been his reward.

It will be the intent of the editor, to advance every degree within his power, the rational pleasure of man;—to plead the cause of virtue;—to lure the youthful mind to love and to embrace those principles which can never satiate, but which ennoble the human nature.

To our fair country women, we pledge our best efforts to promote their interests;—in every act it will be our aim to merit their approbation. The paper will be entitled *The Mentor and Ladies' Bouquet.*

Its general outline will consist of extracts from the most scientific works;—as a "Mentor," it will always contain some judicious moral essay;—and for the "Ladies' Bouquet," will be gleaned the choicest, fairest flowers of literature.

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Should public favor be expressed for the appearance of this proposed work, the same will be announced through the medium of the daily prints. Jan.

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AN ADDRESS

DELIVERED BEFORE THE MASSACHUSETTS AGRICULTURAL SOCIETY AT THE BRIGHTON CATTLE SHOW, OCT. 9, 1822. BY THE HON. TIMOTHY PICKERING.

Gentlemen of the Massachusetts Society
for the Promotion of Agriculture,

It appears to be expected, that at each of your anniversary meetings, a discourse on Agriculture should be delivered. The Trustees of the Society have requested me to address you at this time. But though willing to be laid under contribution to the great object of your institution, it has occasioned a degree of solicitude to present something meriting your attention. From the multitude of books written on the subject of agriculture—embracing in that word whatever should employ the thoughts and the labors of the skillful husbandman—the field would appear almost boundless: yet to select topics particularly interesting to the farmers of Massachusetts, and here to discuss them so as to communicate useful and acceptable information, was not unattended with difficulty. My address must necessarily be miscellaneous.

Philosophers and practical husbandmen have for ages employed their thoughts and their pens on the various operations in agriculture; yet diversities of opinion still exist; and the reasons of many of these operations have been little more than conjectural. What constitutes the food of plants, has long been a subject of diligent inquiry. It was natural to suppose that if this food could be discovered, it could more easily be provided, or at least be more efficaciously administered. The palpable differences which distinguish the immense variety of plants, in their forms, textures, colors, and tastes, naturally suggested the idea, that each variety required its specific nourishment. Yet it being a matter of common observation, that the same soil would nourish and bring to maturity multitudes of different plants, of very opposite qualities—some yielding wholesome food, and others a deadly poison—at the same time all growing together, and robbing one another; a nobler and more simple idea presented itself—that the food of all plants was the same; but that each species was endued with the power of converting that food to its own peculiar substance: as among animals, the same grain produced all the varieties of flesh which go to sustain the life of man. In the vegetable kingdom, this supposed power of conversion seemed strikingly apparent in the effects of grafting of fruits. The juices imbibed by the roots from the earth, and immediately changed to the proper sap of the native stock, ascend and spread through all the limbs; and if each of these be grafted with a different fruit, the varieties will be as numerous as the branches.

By the modern discoveries in chemistry, these mysterious effects seem to be accounted for. For it appears that all kinds of plants are composed of a small number of elements, whose different arrangements and combinations produce all the varieties in question. Seldom more than seven or eight of those elements belong to

plants, and three constitute the greatest part of their organized matter. But each of these is a compound, consisting of the same materials, only in different proportions. The three principal ingredients in the food of plants, and which by them elaborated constitute the food of man and other animals, are named by chemists, carbon, oxygene, and hydrogen; in other words, charcoal, vital air and inflammable air; and these exist in the air we breathe, as well as in manures consisting of vegetable and animal matters.

It may seem incredible that the thin air, an invisible matter, should be changed, in the process of vegetation, into solid substances, as wood and stone: but nothing has been more clearly ascertained, than that in 100 parts of pure limestone, 45 parts are fixed air, or carbonic acid; which in the act of burning the stone into lime, is expelled: for if at that time the stone be weighed, it will be found to have lost so much of its original weight. It is also well known that this same lime, which slaked with water, or exposed to the air, falls down into a powder, will immediately afterwards begin to imbibe fixed air from the atmosphere, and eventually, though slowly, recover its original weight. It is this same carbonic acid, or fixed air, which at the bottom of wells, every year proves fatal to a number of lives. For this air, when separate, being heavier than the air of the atmosphere, sinks and remains at the bottom of wells, and is a deadly poison. It is the oxygene in the atmosphere, called also vital air, because essential to animal life, which mingled with the fixed air, renders the latter harmless.

I have introduced these few remarks on the food of plants, to present an idea—a very faint one indeed—of that very interesting subject; which, as already observed, has so long employed the thoughts of philosophers and agricultural writers; but the satisfactory discovery of which seems to have been reserved for the present age. This view serves to account for the vast variety of plants which will grow on the same spot of earth; the ingredients of their food being substantially the same, but varied in the proportions peculiar to each; and which each has the faculty of appropriating to its own use; rejecting the rest, or casting it off as excrementitious.

But although the same articles of food will afford nourishment to a variety of plants, yet these are so formed as to require a variety of soils, adapted to their several constitutions; some preferring a stiff, others a loose or light soil—some a moist and others a dry one. Few, however, will refuse a well compounded loam. Soils (like plants) however diversified in appearance, consist of different proportions of the same elements. Four earths generally abound in soils; and these, by chemists, are called aluminous, siliceous, calcareous, and magnesian; and of these the three first are the principal; and, in familiar language, well known to every farmer, as clay, sand, and lime. Magnesia is often found in limestones; and the combination is said to give the strongest lime for the farmer's use; so as in smaller quantities to serve his purpose,

as well as mild lime applied in much larger quantities.

The first object which claims the farmer's attention, is the nature or constitution of the soil. The next embraces the means of enriching it and preserving its fertility. That intimate mixture of clay and sand which is called loam, is the most desirable soil, as being already prepared for every operation in agriculture. A stiff clay demands opening by the addition of sand and other materials; and a sandy soil requires the addition of clay. But calcareous earth is considered as essential to give to soils the capacity of attaining the highest degree of fertility. Few soils, indeed, are wholly destitute of calcareous matter, though it may be invisible to the eye: but very few possess so large a portion of it as would be salutary. There can be little danger, therefore, of applying it to excess in Massachusetts, where so little in any form has been found. Limestone is the great source of calcareous matter. But this is of various qualities. Very little of it is purely calcareous. Some lime stones in Great Britain have been found to contain eleven parts in twelve of sand. Of such lime, if sixty bushels were spread over an acre of ground, five bushels only of calcareous matter would be applied. To know then the constitution of the lime he uses, is important to the farmer; and not less so to the mason in preparing his mortar, which will require the addition of more or less of sand, according to the composition of the lime. All marles contain calcareous matter, and are of greater or less value, according to the proportion which this bears to the clay, sand, or other substances mingled with it. All shell fish will supply this material. In some parts of the United States, remote from limestone, oyster shells are burnt to obtain lime for building; and in all seaport towns where many oysters are used for food, their shells will be found in quantities deserving the neighboring farmer's attention; and if raised in piles, mingled with wood, may be burnt to lime.

Of the vast improvements of the lands in Scotland, within the last forty or fifty years, lime has been the basis; and the use of it the first step towards rendering the application of manures, strictly so called, highly productive. There they will lay from fifty to two hundred or more bushels on an acre. In Pennsylvania, where lime has been long and extensively used, twenty to fifty bushels to the acre has been found sufficient, and safer than any larger quantity, at least in the first application. A remarkable instance of the beneficial use of lime, though only at the rate of about twenty bushels to the acre, well merits a recital. The experiment was made on a field of ten acres, for which the farmer had provided two hundred bushels; but it being his first essay in using lime, it so happened that the whole quantity was disposed of when he had gone over nine acres. Indian corn was planted; and the crop was very great. The next year, the field was fallowed, and at seed time sown, a part with wheat and a part with rye; and good crops were produced. "In the Spring (says the farmer) I

sowed it with clover and timothy (Herdgrass) and put two bushels of plaister on an acre; and had as great a crop of clover as could grow; it lay three weeks before the time of mowing." He adds—"The lime and plaister did all this; for no land could be poorer before. Where I laid no lime, I got no clover, although I put on the plaister."* The kind of soil in which lime operated so powerfully, is not mentioned: but probably it was clayey; a very common soil in the country where this land lay. Another like instance occurred in the Delaware State, on a clay farm, on which plaister produced no effect until the land was limed.† While lime operates very beneficially on strong clays, it is said to be still more useful on lighter soils. To ascertain its effects on any lands, will require but little time and a small expense. A single cask of lime will be sufficient for a number of comparative experiments. If a few adjoining rods of land be set apart for the purpose, and the lime, by slacking, brought to a fine powder, it may be evenly spread on the several small strips, in different proportions, at the rate of twenty and any greater number of bushels to the acre. Then, by raking or harrowing, mix the lime with the surface soil, and plant each strip equally and uniformly with Indian corn. One equal strip, tilled and planted exactly as the others, but left unlimed, will enable the experimenter to see what advantage may arise from liming. In the next year the effects of lime in its respective proportions, may be further tested, by sowing the same strips with equal quantities of one sort of grain and of grass seeds.

In like manner, small experiments may be made to try the effects of clay on light sandy or gravelly loams, and of sand on stiff clays. The clay should be carried on and spread, and lie on the surface during the winter, to break and moulder by the alternate frosts and thaws, that it may be more effectually mixed with the soil.

As to the manner of applying lime, I am satisfied the best is that recommended and practised where lime has been most extensively used: that is, to slake it with water, and as soon as it falls to a fine powder and is cool, to spread it evenly over the land, and with the harrow mix it with the soil; its greatest utility depending on its intimate incorporation. In liming extensively, the lime is often, perhaps most commonly, carried on and dropped in small heaps, to be slaked by the moisture in the air: but it should be carefully attended to, that it may be spread as soon as it is slaked; or there will otherwise be danger of its setting in lumps, which may never again be duly pulverized.

If the application of lime be, as is represented, so important to the great and permanent fertility of the soil (and of this I entertain no doubt,) while the knowledge of the fact is all that is essential for the practical farmer to know; something more is desirable to satisfy inquisitive minds; and if the reason for using lime, or its mode of operating, could be shown, it would give confidence to the husbandman, while it gratified the philosophical inquirer.

A gentleman who is reputed to be one of the greatest chemists of the age (Sir Humphrey Davy) informs us that "when lime, whether freshly burnt or slacked, is mixed with any moist fibrous matter, there is a strong action be-

tween the lime and the vegetable matter, and they form a kind of compost together, of which a part is soluble in water;"—that "by this kind of operation, lime renders matter which was before comparatively inert, nutritive; and as charcoal and oxygene (vital air) abound in all vegetable matters, it (the quick lime) becomes at the same time converted into carbonate of lime;" that is, it is restored, by again combining with carbonic acid or fixed air, to the state in which it existed before it was burnt, except its being reduced to powder. Again he says—"Mild lime, powdered limestone, marles or chalks (for chalk is a limestone) have no action of this kind upon vegetable matter; by their action they prevent the too rapid decomposition of substances already dissolved; but they have no tendency to form soluble matters." He then remarks, that "chalk, marle, or carbonate of lime, will only improve the texture of the soil; or its relation to absorption; acting merely as one of its earthly ingredients. Quick lime when it becomes mild, operates in the same manner as chalk; but in the act of becoming mild, it prepares soluble out of insoluble matter." Again he says—"All soils are improved by mild lime, and sands more than clays."

While quick lime, according to this celebrated chemist, is so usefully applied to land abounding in fibrous matter, to effect its speedy dissolution, he says its application should be avoided, where a soil contains much soluble vegetable manure; as it either tends to decompose the soluble matters by uniting to their carbon and oxygene, so as to become mild lime, or it combines with the soluble matters, and forms compounds having less attraction for water than the pure vegetable substance.

But an ingenious writer, under the signature of Agricola, in Nova-Scotia, says, that notwithstanding all these precautionary fears, the offspring of chemical creation, the British farmer is mostly in a habit of applying quick lime to all sorts of soils. And he assigns an adequate reason, that caustic lime cannot remain any length of time in the ground, without passing into a carbonate and becoming mild. This writer offers different reasons for the beneficial operation of lime: that it is capable of absorbing not only that quantity of carbonic acid which it possessed in its natural state (being 45 parts in 100) but an additional quantity; and can form what chemists call a hypercarbonate. This, he says, is highly soluble in water: which accounts for the admission of lime into the structure of plants; and that this excess of carbonic acid adheres very loosely to its base (the mild lime) and is liberated without any extraordinary degree of heat. The carbonic acid, a most important article of vegetable food, is copiously evolved in the putrefactive process of manures; the calcareous earth fixes and prevents its escape—forms with it a hypercarbonate, and readily imparts it, in union with water, towards the nourishment of the crops. It is supposed to do more; it unites with the carbonic acid floating in the air; and when there is a scarcity of aliment in the soil, it seizes and secures this food in the atmosphere, and afterwards disperses it, according to the calls and necessities of vegetation. Hence the necessity of keeping lime on the surface. It is then ready to intercept, and combine, with the carbonic acid which is generated by the fermentation of the putrescent matter lying at lower depths, and to attract the

same gas (the carbonic acid) from the surrounding air.

I confess myself much better satisfied with the observations of Agricola, in accounting for the operation of lime, than with the solution offered by Sir Humphrey Davy. If the statement of the former be correct, we can see a reason for the long continuance of the beneficial effects of lime on land: for although it is not itself food for plants, it is constantly employed in collecting and imparting to them that food, from the sources which have been mentioned. Does not the reasoning of Agricola also indicate the cause why lime benefits sands more than clays? The latter are opened and rendered lighter by its application: and to destroy their too great tenacity, seems to be a main advantage gained by liming clay soils; whereas sandy soils are already sufficiently porous.

An old English practice of burning clay for a manure, has lately been revived in England, and with some appearance of novelty. The facts stated in regard to its operation, preclude all doubt of its efficacy. On stiff clays, it has, in the practice of some farmers, superseded the use of lime: because, although much greater quantities of it are required, yet being on the spot, in the very field where it is wanted, it is much cheaper than lime, for which the farmers are often obliged to send upwards of twenty miles.—It is said that clay thus burnt,—in which the process is so managed as to reduce the clay to the condition of ashes,—will not again, when wetted with rains, recover its original texture of a close compact substance too tenacious of water, and when dry, too hard for the roots of plants freely to penetrate. I have called the burning of clay for manure an old English practice: for I find an account of it in the second of Dr. Eliot's Essays on Field Husbandry, written and printed in Connecticut upwards of seventy years ago. The Doctor gives a recipe, copied from an English book, for the process of burning it; which is with a *smothered fire*, a point of indispensable necessity, according to the present practice in England.

Many ways of improving lands, both in the manner of cultivating them, and in the kinds of useful plants to be introduced, have been often recommended; and certainly a spirit of improvement has been extensively excited: yet much remains to be done, to raise our crops to an equality to those in some European countries, whose lands and climates are no better than our own. But have we the means of accomplishing it? I answer, generally, that we have. Our animals for labor are equally efficient. Our instruments of husbandry are as good, or capable of being easily made so. Our husbandmen are as intelligent, and unquestionably less prejudiced, and less averse to adopt improved modes in farming. In England, a bigotted perseverance in ancient practices, however absurd, has in times past been astonishing. Her own writers inform us, for instance, that in one county all their common ploughing has long been performed with one pair of horses driven by the ploughman; while in an adjoining district four or five horses, in a single line have been put to the plough, with the addition of a driver, and yet ploughing no more land, nor with a deeper furrow, than was elsewhere effected with one pair of horses.

But although I suppose no prejudices equally strong exist among us, still we are, I think, too

* Memoirs of the Philadelphia Society of Agriculture, Vol. I. p. 193. †Ibid, Vol. II, p. 187.

prone to adhere to old usages, where no good reasons can be given for them. New practices in husbandry are often—perhaps chiefly—attempted by persons not bred to that occupation, and these, for want of practical skill, may often fail in the execution; and when successful, the success is ascribed to a liberal expenditure of money, beyond the ability of the mere farmer. But what risk will attend experiments made by farmers themselves, to test the value of these novelties? Each one for himself can try them on as small pieces of ground as shall suit his convenience, and at a very small expense of time and money. The introduction of improvements would be facilitated, if the money expended, and especially the quantity of labor bestowed upon them, were always accurately stated, and their authenticity vouched by the names of the improvers. And if the experimenters, in these cases, who hire all the labor, and this often performed in their absence, are merely *not losers*,—practical farmers, always present, and working too with their own hands, would assuredly render such new practices profitable.

But I apprehend the knowledge of modern improvements in husbandry is far less extended than may commonly be supposed. That celebrated Travelling Agriculturist, the late Arthur Young, a man of science and literature as well as a practical farmer,—after visiting different tracts in England, for the purpose of observing, and for the information of his countrymen describing their various modes of husbandry, commenced, about the close of the American War, his *Annals of Agriculture*. He afterwards travelled over France and parts of Spain and Italy with the same views. Thus fraught with agricultural knowledge, he continued his labors in that work; comprehending, in addition to his own observations, useful communications from practical farmers, bearing their signatures, or it was a general rule with him not to admit any unless thus vouched; yet, if my recollection be correct, that practical work was so little tended to by English farmers, that he once stated its sales as not exceeding 500 copies. Since then, indeed, improvements have more readily been adopted, and agriculture has advanced with an accelerated pace, and in Scotland with great rapidity. Reading, to obtain agricultural information, has been extended, and become fashionable; and book-farming knowledge is no longer despised. This knowledge is now of greatly increased value, because experiments, with a view to improvements, are not, as formerly, made at random, but on principles founded in the nature of things, and which rest on modern discoveries.

As we have no farmers who cannot read—in order to give to all opportunities of reading, I like to leave to suggest for consideration, the expediency of forming, in each township in the State, a farming society, of which the members would meet monthly, to converse on farming affairs—to make mutual communications of their practices in husbandry—to commit to writing every practice not in common use, which may be beneficially extended—and to read and examine modern publications on their vocation; particularly those of the State Society, which the Trustees would gratuitously furnish. To these, such township-societies would find it precious and useful to add the best periodical publications which issue from the presses of our own country, either through the agency of

Agricultural Societies, or of well informed individuals. With these and a few other books on the subject, each township-society would become possessed, at a very small expense, of a pleasing and instructive agricultural library.

After considering the constitution of the soil he has to cultivate, the next object of the farmer will embrace the means of enriching it, and of preserving its fertility. To enrich it, manure will present itself as of the first importance; and of manures, the dung of his live stock will obviously occur as the most essential ingredient. If the manure from the droppings of his stock could easily be doubled, how great would be the farmer's acquisition? That this is practicable I cannot permit myself to doubt. I am rather inclined to think it capable of a manifold increase. At another public meeting of farmers, I had occasion to suggest some means of preserving and greatly increasing this important article; particularly during that portion of the year when cattle are at pasture, but penned at night in the barn yard. Nothing is more common than to see these yards, after being cleared of manure for the Spring crops, left naked until autumn, without litter or mud, or earth of any kind, to absorb the urine of the cattle and to mingle with their dung; but all is left open to our burning summer suns, by which the greater part, three fourths, perhaps seven eighths, of the essence of both are exhaled and given to the winds. To prevent this serious loss, I suggested the expediency of giving to the barn yard, as soon as it was cleared out, a covering of any kind of litter, and a coat of earth, mud from low grounds, loam where attainable, or any kind of earth to which a farmer can have easy access; and that as often as once in two weeks, a new coat of earth should be introduced. Weeds from road sides and waste places would make valuable additions to the summer manure. By such means manure may be increased in a four, perhaps an eight-fold degree.

But if in addition to this accumulated summer manure, the farmer, without any of the dung or litter of his cattle, could double the quantity usually made during the winter, would he not consider himself enriched? That this is practicable will appear from a statement I shall now recite; it being the result of careful experiments made in Scotland during a period of ten years. The fact is stated in one of a series of papers written with great ability by Mr. John Young, under the signature of *Agricola*, (already referred to) and published at Halifax. The urine of cattle produced this mighty effect. I cannot so well occupy your time as by giving the statement in his own words, as abridged by him from the *Farmers' Magazine*, published in Scotland.

"I should be afraid (says Mr. Young) to hazard my character with the public, by stating in round and unqualified language, the value of this rich juice which is literally wasted and thrown away; and therefore I shall proceed with caution, and give a detail of facts, conclusive in their bearings, and substantiated by the best authority. They are contained in a letter* from Charles Alexander, near Peebles, in Scotland; and are addressed to Sir John Sinclair in 1812, for publication. This intelligent farmer had long been impressed with the great impor-

tance of the urine of cattle as a manure; and he sets about to discover, by a long and well conducted series of experiments, the best method of collecting and applying it. He began by digging a pit contiguous to the feeding stall, but distinct altogether from that which was appropriated for the reception of the dung. The dimensions of this pit, according to his own account, were 36 feet square, and four feet deep, surrounded on all sides by a wall; and the solid contents were 192 yards. Having selected the nearest spot where he could find loamy earth, and this he always took from the surface of some field under cultivation, he proceeded to fill it; and found that with three men and two horses, he could easily accomplish 28 cubic yards per day; and the whole expense of transporting the earth did not exceed £1. 16. 0.* When the work was complete, he levelled the surface of the heap, in a line with the mouth of the sewer which conducted the urine from the interior of the building, on purpose that it might be distributed with regularity, and might saturate the whole from top to bottom. The quantity conveyed to it, he estimates at about 800 gallons; but as this calculation was founded partly on conjecture, for he measured not the liquor, it will be better and more instructive to furnish and proceed on *data* that are certain and incontrovertible. The urine was supplied by 14 cattle, weighing about 34 stone each,† and kept there for five months on fodder and turnips. The contents of the pit produced 288 loads, allowing two cubic yards to be taken out in three carts;‡ and he spread 40 of these on each acre; so that this urine in five months, and from fourteen cattle, produced compost sufficient to fertilize seven acres of land.§ He states further, that he tried this experiment for ten years, and had indiscriminately used, in the same field, either the rotted cow dung, or the saturated earth; and in all the stages of the crop he had never been able to discover any perceptible difference. But what is still more wonderful, he found that his compost lasted as many years as his best putrescent manure; and he therefore boldly avers, that a load of each is of equivalent value."—The dung pit, which contained all the excrementitious matter of the 14 cattle, as well as the litter employed in bedding them, and which was kept separate for the purpose of the experiments, furnished, during the same period, only 240 loads; and these, at the same rate, could manure only six acres."

On this statement one remark forces itself into notice. That for the want of such a reservoir for saving the urine of our cattle, more than half of our winter made manure, and this is the farmer's chief dependance, is lost.

It is not stated whether the pit filled with loam was or was not covered: but unless covered, rains would saturate the earth, and thus in a manner exclude the urine conveyed to it from the cattle stall. It should also be noted, supposing the pit to have been covered, that the frosts in Scotland would seldom so freeze the earth in the pit as to prevent the absorption of the urine. The frosts in Massachusetts

* \$21 31. Seven days work for three men and two horses; each horse, I suppose, in a single cart, a common usage in Scotland.

† This would be the weight of a cow.

‡ This gives 18 cubic feet to each load.

§ Seven Scotch acres are nearly equal to nine English and American acres.

would doubtless require that the pit should be sunk to some depth, and certainly be under cover. In a word, a barn-cellar would seem to be the proper receptacle for this important manure. How it should be arranged, must depend on the situation of the barn. In Pennsylvania, barns, which are commonly of stone, are often erected by the side of a hill, by which means a story is gained for their cattle stalls. By digging where there is a gentle slope, a sufficient excavation for a barn-cellar would be easily made, to drive in a cart on a level, for carrying in the earth in autumn, and for removing the manure in the spring. With the increased fertility of his soil, the farmer will be able to increase his live stock; and the live stock, in return, will be constantly adding to the productions of the soil.

In respect to **LIVE STOCK**, it is gratifying to see the spirit excited within the last five or six years, to attend to their melioration, by preserving some of the most promising for breeders, instead of sending them to the shambles; and by introducing from other countries some individuals already highly improved. New England was originally granted to merchants of Plymouth, in the county of Devon, in England. It is natural to suppose that some of the early settlers sailed from Plymouth, and brought with them the Devon breed of cattle. The uniform red color of various shades, some deep red, and approaching to brown, now so commonly seen among us, are probably descendants from the Devon race originally imported. Their uniform red color corresponds with a distinguishing mark of the Devon breed, now so highly improved and celebrated in England. Among our own, individuals of this stock might be selected, admitting, with equal care, of equal improvements, on the principles now so well understood by the eminent English breeders, who, Mr. Arthur Young has said, are indebted for them to the celebrated Robert Bakewell. On the same principles all our other domestic animals may be improved. And this course appears to me indispensable for the speedy attainment of extensive improvements of our stock, of neat cattle especially. More than one generation must pass away before highly improved races, from the few imported animals, can be generally obtained. In this important work every substantial farmer in the country ought to engage; and by their rival efforts in every county, the great object might be accomplished. Beauty of form is desirable, and will merit attention: but strength for labor and ample supplies for the dairy, are more important. A disposition to *fatten at an early age*—a point of excellence zealously sought for in England, where husbandry labors are chiefly performed by horses, is not of material consequence to New England farmers, where oxen for the drought and cows for the dairy constitute their most interesting stock. But what shall farmers, who live remote from a veal-market, do with their surplus calves, above the numbers of the best selected to keep up their stocks, and to supply those whose situation may induce them to purchase, and not breed for themselves?—I will mention what was some years since stated to me as the practice of a respectable farmer in Connecticut. He had cows for a large dairy, and cheese-making was his object. He allowed his supernumerary calves to suck their dam three days, (or until the milk

was fit for the dairy) and then killed them; taking off their skins, and giving their flesh to his store-hogs. This was to me a singular instance of practice; but from the good sense of that farmer, I conclude he must have experienced it to be not merely a necessary but a saving practice. It may be in use among other great dairy farmers, although I do not know that it is.

The Trustees have already offered a premium to encourage the making of **FINE BUTTER**. But I am inclined to think it will be difficult, if not impracticable, to make any of the greatest excellence, during summer, without the aid of ice-houses or spring-houses. The city of Philadelphia is admitted, I believe, to be supplied with *some* butter, during the warm months, superior to what is found in other cities of the United States. Yet their pastures are not better than those in the vicinity of some other cities and towns. I ascribe this superiority exclusively to the spring-houses on many of the farms in the neighborhood of Philadelphia. Pennsylvania is a well watered country. There it seems to have been an early practice, in taking up land for a farm, to search for a spring; and as near to it as the ground would permit, regardless of its situation in respect to the public road—to erect the dwelling house. Here the cattle, as well as the family, would at once find good water, without the labor of digging a well. Over these springs small houses are erected usually of stone. The room of the spring-house may be from ten to twenty feet square, according to the quantity of milk to be provided for. Trenches are made on the four sides of the floor, and bottomed and lined with flat stones. The residue of the floor is likewise paved with stones. The water from the spring enters at the side of one trench, runs all round, and at the opposite side passes away at a hole left in the wall. The under side of the hole is at such a height above the bottom of the trenches, as to raise the water just enough to keep the milk cool in the pans which are placed in it. This water runs perpetually from its source, and as constantly passes off at the outlet. In one of the trenches are also set the cream pots, and the pots with the butter the night before it is carried to market. Perhaps in the vicinity of Boston and other towns in the State, there may be some springs which may furnish the same accommodations.

Much has been said and written concerning an evil which pervades our whole country, from one extreme of the Union to another—the general use of spirituous liquors—prevailing, in the opinion of wise and good men, to a mischievous excess. Sometimes it has been hoped that Agricultural Societies might find means to check the pernicious practice. But the class of farmers who abstain from it must be too numerous to become candidates for premiums on temperance. Besides, such prudent men need no remuneration for their abstinence. Here virtue is indeed its own reward.

It is said that in France and Spain the laborers in husbandry are remarkable for their temperance: but they drink small wines instead of ardent spirits. A French gentleman who for some years was endeavoring to establish vineyards in the Middle States, particularly in Pennsylvania, once mentioned to me how cheaply the French peasantry could be regaled with wine, purchasing a bottle for a few pence. At the

same time, in answer to my question, he admitted that such wine was not equal to good American bottled cider. It has occurred to me that nothing might be so likely to check, and in good degree to supersede the general and excessive use of ardent spirits, as the universal introduction of

GOOD CIDER.

Were this beverage as well made as easily it might be, it would be alike palatable and wholesome; and in the end might banish spirituous liquors from the houses of the great body of our citizens. Good cider might be furnished at half the expense of strong malt liquors; provide apple orchards were more extensively cultivated, and the fruits intended for cider properly selected. We have a great deal of bad cider, because sound and unsound apples are ground together, and no regard is paid to fermentation except to give it vent. No one can suppose the juice of rotten apples capable of becoming cider. But in whatever degree they are introduced, in the same degree the liquor must be debased. To make the finest cider, sound apples only should be used. But I must not enter into the minute particulars of the process of making an managing cider—it would not comport with the occasion, nor be practicable within the limits to which this discourse must be confined. I will barely suggest a few things which involve some principles.

In every orchard are found a great variety of apples generally used for cider. In New England I presume these are chiefly wild, that is, ungrafted fruit. And I have heard the opinion expressed, that such wild fruit would make the best cider. This surely is an error. For a though in a large orchard some good natural fruits may be found, yet many of the trees produce apples so small as to cost too much labor to collect them, and others have juices so meagre as when collected to be of little worth. A few sorts which in England have been celebrated for yielding the finest ciders, were always grafted with as much attention as apples designed for the table are with us. But in England, the apples which a century ago furnished ciders of distinguished excellence,—to use the expressive words, in like case, of some of our own farmers—*have run out*. They can no longer be continued by grafting. This well known fact in the country, has led an eminent naturalist there to advance the novel doctrine—doubtless as true as novel—that trees, like animals, have the infancy, youth, maturity and old age. Grafted from the last, though inserted in young stock soon perish. Hence the farmers there have been seeking for fine cider fruits from new trees growing from the seeds; and when any of these are found to possess the desired qualities they are propagated and extended by grafting. In some parts of New Jersey, in which ciders of superior excellence are made, the farmers produce them wholly by grafting: nor can we expect fully to rival them, until we adopt the same practice.

Perhaps there are few extensive natural orchards in Massachusetts in which valuable cider fruits may not be found, with rich yellow flesh capable of yielding liquors strong and of excellent flavor. From such trees, if still young, in vigorous life, whole orchards might soon be formed. And probably different kinds might be selected which ripen their fruits at the time

most proper for making them into cider. Apples until mellow do not attain their highest flavor; and till then cannot give the highest flavor to cider. Many reach that mellow-ripe state in October and November, which may be called the cider-making months in Massachusetts. It would require but little attention to select and propagate the best apples thus ripening in succession. Such ciders, made of ripe and unmixed fruits, would be more easily managed in the most difficult and important part of the process of cider-making—its first fermentation; on the right or wrong conducting of which the character of the cider depends. In one case it will be soft and pleasant—in the other hard and austere.

The Trustees of this Society have, I believe for several years, been offering a liberal premium to encourage the

TURNING IN OF GREEN CROPS,
as a mode of manuring land: but I do not recollect that the premium has been claimed. It has been an ancient practice in other countries; and is not unknown in our own country. Dr. Eliot (whom I have already had occasion to mention) noticed it seventy years ago, in his *Essays on Field Husbandry*; and recommended millet as a plant well adapted to that purpose. The seed being but little bigger than cabbage seed, a small quantity will be sufficient for an acre. I have often heard of the turning in of Green Crops being occasionally practiced in Pennsylvania. Many years since, an intelligent man of that State mentioned to me a farmer, who had purchased a farm in a township remarkable for the general poverty of the soil; and that he improved his own by ploughing in green crops—buckwheat, oats, rye;—turning them in repeatedly, until the land produced crops worth harvesting. Sir John Sinclair, in his *Code of Agriculture*, speaks of the practice of ploughing in buckwheat and other crops, when manure was deficient. But he says that in Lincolnshire, buckwheat had for several years been ploughed in as a manure, and ultimately given up as doing no good. He then adds—"Unless so far as nourished by the atmosphere, the vegetables thus treated are supposed merely to restore the nourishment obtained from the soil." And this is the very principle on which the ploughing in of green crops materially depends. The plants while growing derive a portion of their food from the air; and being turned in, so far at least add manure to the soil. But this is not all the benefit: weeds spring up with the sown green crops, and are sown in with them; thus increasing the manure, and at the same time cleaning the ground for a harvest crop. But besides the growing plants, the soil itself, under their shade, made light by the ploughing and harrowing, is also receiving a portion of the same fertilizing airs. Lord Kames, however, in his *Gentleman Farmer*, says—"I approve not of ploughing down buckwheat, red clover, or any other crop, for manure. The best way of converting a crop into manure is, to pass it through the body of an animal. The dung and urine, not to mention the profit of feeding, will enrich the ground more than to plough down the crop." Notwithstanding these authorities—and the opinion of Lord Kames is entitled to very great respect—I am inclined to think that the circumstances and condition of many farms may be such as to render the

practice eligible; particularly when manure is deficient;—and where is it not deficient? Is it not a received fact, when lands have been impoverished by cropping without manuring, that by letting them lie a few years *at rest*, they acquire such a degree of fertility as to bear a crop of some sort that rewards the farmer's toil? If this happen to unseeded land, thrown out as waste, how much sooner may it be recovered when sown with buckwheat, oats, rye or millet, and the crops when in full blossom ploughed in? If this product be small, let the land be again sown, and a second crop be ploughed in. And if a third sowing and ploughing in were given, what would be the whole expense? A trifle compared with a dressing with stable or barn yard manure—if it could be procured. This is to be carted to the field and spread, in order to be ploughed in: but the green crop is on the ground, and evenly spread, ready for the operation of the plough. But leaving all theoretical reasoning, I will recur to well authenticated facts.

The late distinguished agricultural writer, Arthur Young, Secretary to the English Board of Agriculture, so lately as the year 1811, delivered before that body an interesting lecture, to describe the husbandry and speak the praises of three celebrated British Farmers. One of these was Mr. Duckett, who occupied in succession, two "sand farms;" that is, farms in whose soil sand was predominant. It was one of the practices of this very ingenious farmer, to plough in green crops to enrich his land. And to do it effectually, he contrived a plough with which, when drawn by four horses, he could open his furrows to the depth of eight or ten inches, and in them perfectly bury his green crops. The opening of so deep a furrow was called *Trench-ploughing*; and by the simple addition of an arm partly curved, and fixed on the right side of the coulter, at the desired height of eight or ten inches above the sole or bottom of the share, the growing crop was pressed to the ground; and the furrow-slice raised by the plough, following close behind and turned completely over, perfectly buried the crop and weeds. This coulter of Duckett's trench plough, with the curved arm attached to it, is called a *skin-coulter*. The arm must necessarily extend so far to the right as the breadth of the furrow; and just at that extreme, I conceive, the curve downward begins, so as, when the growing crop is pressed flat, the stems or straws may not spread out any further; and being thus confined, are completely overwhelmed. Hence there would be no vegetation in the seams of the furrows. "By means of this tool (says Mr. Young) I have repeatedly seen on his farm, stubbles completely turned down, and crops of turnips, tares and other plants instantly put in; which crops I have afterwards viewed with equal pleasure and surprise; the execution was as complete as the design was sagacious: but it went further—converting the nuisance of any weeds into manure. So effective was the work of the plough, that I once saw him turn down a crop of rye six feet high, and immediately roll in turnip seed. The effect did not depend so much on an extraordinary depth of ploughing, as on the subversion of the soil; for of the rye I have just alluded to, not an atom was left visible; and yet the depth did not exceed eight inches. But if there be Couch [twitch grass]

in the soil, this ploughing is ten inches deep; and the succeeding crop in any case well handled. This trench-ploughing system is not practiced above once in two or three years, and the successive tillage shallow, upon the surface. By such deep ploughing, seldom given, Mr. Duckett conceived that a due degree of moisture was preserved in his light land; by means of which his crops were flourishing in seasons of drought which destroyed those of his neighbors."

Here perhaps the question will occur—were Mr. Duckett's improvements adopted by other farmers? Mr. Young says they were, by some of his enlightened brethren. Why they were not generally imitated, Mr. Young ascribes (I repeat his words) to "the perversity which characterizes the ignorance of English farmers." Again he says, "If our farmers would have adopted the practices really excellent, as soon as they were known, British agriculture would forty years ago have arrived at its present state; and at this time the kingdom would have been a garden."

In connexion with this account of Mr. Duckett's practice, I take leave to suggest the necessity, or at least the great utility, of an occasional fallowing; primarily, in order to destroy the weeds which infest so many fields, and essentially injure all crops of small grain, especially spring wheat, which ripening more slowly than rye and barley, is much more oppressed by the weeds. In effecting the object here suggested, and to enrich the soil while making a fallow, I would recommend the following mode of practice. As soon as it can be done in the spring, plough, sow and harrow in the seed of the crop intended to be turned in. Weeds will spring and grow with the crop.—When the latter is in full blossom, turn it in. Immediately sow for a second crop. With this also will arise another crop of weeds; and both, as before, are to be turned in. Should the season permit, and the foulness of the ground require it, sow for a third crop, to be ploughed in, like the former, before winter. A field thus managed will be in good order for a crop of barley, summer wheat, rye or oats, in the ensuing spring; and of either a comparatively clean crop may be expected.

This dressing with green crops, valuable as I conceive it to be, need not be confined to sand farms; it will be not less beneficial in all light gravelly loams, which I suppose rather to abound in Massachusetts; certainly, stiff, clayey loams are not common.

A few concise remarks on the general principle, and on some of the objects of these annual exhibitions, will conclude this address.

It is supposed, and justly, that these public shows, by exciting an emulation among farmers, will lead to important improvements in our husbandry. The general question which the case presents, is, What will be the easiest, cheapest, and most effectual means to accomplish this great object? A principal one has been to grant premiums for the greatest crops of specified plants on given quantities of land. One pleasing result has appeared—that by ample manuring and good culture, the usual crops of the same plants may be doubled and trebled. But is it necessary to continue premiums of this kind? May not now the management of farms rather claim attention? Instead of numerous small pre-

miums dispersed on a variety of objects, might they not be advantageously concentrated for the purpose here intimated—the cleanest, most economical, the most productive management of farms? For it must be such a general improvement of the entire farm that will constitute the farmer's permanent prosperity. The decision of claims on this ground cannot be expected to be made by a committee of this Society to travel through the whole State: but will it not be practicable by county committees? Perhaps it may not be difficult for the Trustees of the State Society to prescribe some general principles and rules of proceeding, that may produce uniformity in the reports of county committees acting under their direction.

In ploughing, the just aim must be to make straight furrows, and of a uniform breadth and depth; and so turn over the furrow-slice as completely to cover whatever plants or manure are upon it. All this cannot be effected with a hurried step. And what benefit can possibly result from such a step? A farmer's oxen at the plough must labor a great part of the day properly to turn over an acre. To do this without a driver, will require a skilful ploughman and well trained oxen. To encourage the forming of such ploughmen and oxen, should, I conceive, be the sole object of ploughing matches. Working-oxen at the plough, may be considered as well trained when they obey the voice of the ploughman, keep the track in which they ought to move, and step as quick as will be compatible with the necessary continuance of their labor. And as the annual exhibitions at this place have demonstrated the practicability of performing the general operations of the plough with one yoke of oxen, without a driver, it may merit consideration whether premiums should not be thus limited in all future trials with the plough. Under such limitations, every farmer who is ambitious to exhibit proofs of superiority in these points, would be sensible that his oxen must attain a certain size, and be, though not fat, yet well fleshed; which would give strength to their sinews and momentum to their exertions. With such oxen all our agricultural labors would be so well performed, that there would be no room to envy the condition of farmers in any of our sister States; in some of which, their horses consume perhaps as much grain as would furnish bread to all the inhabitants of New-England.

FOR THE NEW ENGLAND FARMER.

MR. FESSENDEN,

The improvements in agriculture which have recently and generally been adopted in our country, while they evince the intelligence and enterprise of the farmer, have given him pre-eminence among the benefactors of the commonwealth. He has acquired the skill of improving his soil, and possessed himself of the best implements for its cultivation. He is judicious in his rotation of crops, best adapted to the soil in reference to the succession. He prepares his seed in the best manner, and sows it at the season most favorable to vegetation, and with a liberality which promises the greatest abundance. Thus far is well, and gives a fair indication that the details of his whole system are in unison. Still I am apprehensive that most farmers are too inattentive to the most essential requisite in good husbandry—I mean in the selection of their

seed, generally, but particularly to the purity of the kind sown, broadcast, upon their best prepared soil. One error, here, may mar our whole system, and render our skill productive of as much evil as good. On poor and worn out land, the evil of sowing a mixture of impure seed, with grain or grass seed, would be great—but where the ground is in high order, the crop is more injured; the noxious plants take firmer hold, and are more difficult to be eradicated.

I have known farms, otherwise well cultivated and productive, incalculably diminished in their value from neglect in this precaution. I have seen fields of grain in such full blossom with wild turnips, as to appear the standard crop. I have seen others so choked and entangled as to render it doubtful whether the culture of rye or tares was intended. I have further seen extensive enclosures of luxuriant grain overtopped by the gaudy and luxuriant Canada thistle, or more stately dock.

I have no objection to the owners of these farms regaling themselves and their cattle with this nauseous mixture, if it best suits their taste—but I protest against their vending it to others for food—more especially for seed. In the latter case, they do an act, worse than most things which are considered frauds in other transactions. To sell me a diseased animal, as sound, would be a small injury compared with the selling me a bushel of oats with the mixture of an ounce of tares or wild turnip seed. The animal might die, and I should lose only my money, and some expense in endeavoring to save him; but my farm has received a malady of which it cannot be cured for years, nor ever, without much expense of time and labor.

These sentiments, in the abstract, will appear pertinent to every judicious farmer—but I fear there are many, like myself, whose reflections have been called to the subject by experience. Making it my rule that nothing should be suffered to grow which injured the crop, my vexation was extreme when in two instances the grain which I had purchased for seed communicated a profusion of wild turnip to my ground. By great care and diligence through the summer, I in both instances succeeded in preventing a further spreading—but the time spent, and the injury to my grain in eradicating it, made a deduction of nearly half the value of the crop, besides a further trouble from the seed which was brought to vegetate in succeeding years. In the spring of 1821 I laid a field down to grass with rye. Learning that a farmer in town had raised a rare and valuable kind, I purchased, at an enhanced price, a supply for sowing. The grain appeared well; but so beset with tares that it was useless to attempt to pull them out. After harvesting I dug up what roots I could find, and secured many of the unshelled pods. Instead of mowing the grass the present season, as I intended, I turned in my cows to prevent the further seeding of this baneful plant. In this case the damage was not only great, but what is worse, there is no calculating its duration.

There was culpable error, I admit, in sowing any grain without carefully examining it. This negligence is too common. The only palliation in my case, was, that I purchased it of persons who pass for good farmers. But the security of having good seed ought not to depend upon the inspection of the buyer. If he is vigilant

himself, he may often be under the necessity of entrusting his business to others who are unfaithful. The seller, if he raises the seed knows whether it be impure. If it is so, it is fraud; for the consequence of which, he ought to be made liable. But whether he raises it or not, if it is bad, the effect is the same to the purchaser; and the vender should be answerable.

In England, wholesale renders of seed are required by law to brand their casks with their names: and all who sell are responsible to the purchaser if the seed is bad. In this commonwealth, where agriculture is so liberally patronised by the Legislature, a law of this kind is obviously required and expected. The first dawning of this kind, in that body, upon the subject of the Canada Thistle, are hailed with pleasure. But it is hoped that while they are endeavoring to expel a foreign enemy, they will not be unmindful of domestic foes, more insidious and destructive.

Yours, with respect,

O. FISKE.

Worcester, January 15, 1823.

THE FARMER.

BOSTON:—SATURDAY, FEB. 8, 1823.

Mr. Pickering's Address.—We are sure that our columns could not have been better filled than with the able Address of the Hon. TIMOTHY PICKERING, which occupies most of the pages of our present number. It is true that many of our readers will be furnished with this valuable paper from the Massachusetts Agricultural Repository, in which it originally appeared. But there are others, who, it seems, have for some time been waiting with solicitude for its appearance in our paper. We have repeatedly been requested to furnish it, and are now happy in complying with the wishes of our friends, who have made such applications.

We are somewhat at a loss how to express our opinion of this Address in such a manner as to convey our real sentiments; and at the same time avoid the appearance of that kind of encomium which often displeases men of merit. We shall, however, venture a few words, with a disposition to say no more than truth justifies, and justice demands.

Although the subjects of the Address are not only important, but many of them abstruse, forming what may be styled the metaphysics of chemistry and physiology; still there appears to be nothing in Mr. Pickering's observations, which is hard to be understood.—Volumes after volumes have been written on the food of plants; the elements, or chemical constituents of vegetables; the mode of operation, the manner of applying, and the benefits resulting from the application of lime; the different kinds of earth necessary to constitute fertile soils; the burning of clay for manure; the obstacles, which prejudice, and a pertinacious adherence to old usages oppose to improvements in agriculture, and the best means of overcoming such obstacles; the best methods of accumulating and applying manure; methods to improve the different breeds of live stock, &c. &c. But we do not remember ever to have seen so many, and such important topics comprehended in even more than double the number of pages containing Mr. Pickering's remarks on those subjects. But, though the progress of the orator was necessarily rapid, from the great extent of the field, which he undertook to survey, he was able to shed new light on every object which came in his course. In short, we never read an agricultural essay, which, in our opinion, exhibits so

such useful matter in so short a compass. We think it would be a subject of congratulation with every friend of his country, that an eminent statesman and revolutionary patriot should be induced to exert his influence, employ his time, and devote his talents to promote the interests of agriculture, the most noble of the sciences, as well as the most useful of the arts.

The Editor has received a letter from Mr. Kenrick, of Newton, accompanied with a very acceptable present of a bottle of his Currant Wine, or "Columbian Croiselle." Mr. Kenrick states that this wine is sold by the keg at \$1.08, and by the barrel at \$1, per gallon, and at \$5 per dozen, white at \$6.50. We do not possess any connoisseurship with regard to wine, and can only say that the sample sent us was very agreeable, not only to our palate, but to the palates of some friends, whom we employed as *tasters* on the occasion. We therefore cheerfully recommend it as a pleasant, palatable, and we doubt not wholesome beverage.

Mr. Kenrick further remarks, that, "the facts collected by Col. Pickering, in regard to the best time for felling Timber, I consider of very great importance. Mr. Cooper told him that white oak, as well as hickory, felled in barking time, would not be bored by worms. I wish that some of your correspondents, who might be high the salt water, would undertake to make experiments on yellow and white pines, hickory, chestnut, and every sort of oak used in shipping. Samples could be felled and sunk in water now; and similar samples should be felled in barking time, and placed side them. If I am not mistaken, nearly all the stumps in West Boston bridge were soon ruined so completely by worms, as to require replacing. I believe they were originally white pine.

"I am about entering on a course of experiments to ascertain the cause, in a satisfactory manner, why the worms, both on dry land, and under water, prey upon hickory and other wood felled in the winter season, but not when felled in barking time. If I succeed I will give you the result; and if you have a trustworthy friend that will make the experiment under water, we will be able to give the public information of the high importance to every section of our country."

The Editor would be greatly obliged to any friend who would make the experiment suggested by Mr. Kenrick, and would give his personal assistance so far as his indispensable avocations would permit.

FARMER SUMMARY OF NEWS.

CONGRESS appears to be pretty diligent in ways of doing, and will make, it is hoped, a good job of its legislative proceedings the present session. The Committee on motion of Mr. Holmes, has been instructed to report on the expediency of transferring the principal Eastern mail in steam boats. They appear to be instituting a sharp look out relative to money matters, and do not intend that that the garb of patriotism shall be used as a cloak for speculation. They have, likewise, a bill on the carpet to provide for the admission of persons as revolutionary pensioners, whose applications have been rejected in consequence of the largeness of their property, but have since become poor. Their business, however, chiefly consists of details of important but not general interest.

MASSACHUSETTS LEGISLATURE will, we believe, close its session on Tuesday next. The bill relative to Imprisonment for Debt has been negatived. The bill concerning the Boston House of Industry, has been completed. A bill has passed to regulate the goat at large of sheep, rams and he goats at certain seasons of the year. A bill further to regulate the practice of Physic and Surgery has passed to be enacted. The bill imposing a duty on auction sales has passed. The bill respecting religious freedom has been postponed indefinitely. A bill passed to be enacted, authorising the officers of the poor to act as guardians.

FOREIGN.—The latest news from Havre comes down to the 15th December. The appearance of the political horizon in Europe is less ominous of war than at the preceding accounts. Spain, it is said, is to be left to her own management, and France has ordered her troops, destined for that country, to rest upon their arms for the present. The Constitutionalists in Spain continue to be successful. The Greeks are likewise triumphant. Chourschid Pacha had a fresh defeat on the 22d, 23d and 24th of October—had lost 700 men, and retreated to Larissa.

DOMESTIC.—According to a statistical table, the distance between Washington City, and the new Colony contemplated at the mouth of Columbia river, is almost the distance between Washington and London.

Mrs. Rebecca Long, of Concord, N. H. and one of her daughters, were, not long since, poisoned by some white lead having been accidentally mixed in a quantity of sugar. Their sufferings were prolonged and very excruciating. [An English medical writer, whose name is not now recollected, states, that "when mineral poisons, technically called oxides, are taken internally, one table spoonful of powdered charcoal is a complete antidote, mixed with either honey, butter or treacle, taken immediately; within two hours administer either an emetic or cathartic; in this way the effect of the poison is prevented." We do not, however, presume to vouch for the efficacy of this remedy, but submit it for the consideration of medical men.]

The Albany Daily Advertiser of the 28th ult. states that the Albany stage was overturned in the Highlands on Friday, and one of the passengers, a gentleman from Vermont, had his collar bone broken, and several others were more or less injured. The accident was caused by the driver's attempting to pass an opposition line.

Large Hogs.—William Yale, Esq. of Meriden, Conn. fattened and killed on the 6th Jan. five hogs, weight as follows: 462, 476, 484, 486, 542—in all 2450.

Firkins of butter have been sold at Montreal, which after penetrating two inches below the surface were found to contain a mixture, fit only for the soap boiler.

A gang of counterfeiters of Spanish milled dollars has been discovered in Lower Canada, in the neighborhood of Montreal, and two of them apprehended. The dollars, it is said, were extremely well imitated. A gang of robbers, which had carried on its depredations for some time in the neighborhood of Montreal has likewise been detected and committed to prison.

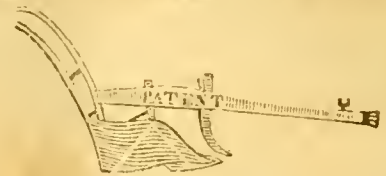
Fires.—A new grist mill with two run of stones, belonging to Mr. Robert T. Shaw, of Lansing, N. Y. was destroyed by fire on the 9th ult. in consequence of the carelessness of the miller.—The Congregational Church in the village of Great Barrington, (Mass.) was discovered to be on fire on the 13th ult. The fire had obtained a formidable ascendancy, when the building, and probably the whole village was preserved from destruction by the intrepidity of Mr. Gilbert Ford, who mounted the roof at the hazard of his life, and poured water on the spot where the flames issued most copiously. The fire is supposed to have been communicated from a small wooden box, containing ashes, into which some of the female part of the congregation had probably emptied the contents of their stove-pans the day previous.—On the 20th ult. a barn, containing 200 bushels of wheat, a quantity of oats, and hay sufficient to winter a large stock of cattle, was consumed in Addison county, Vermont. The fire was communicated by Sylvester Hanks, son of the sufferer, who, having deliberately set fire to the building, was the first to give information. He was arrested and sent to Middlebury jail.—A grist mill belonging to Gen. Stephen Van Rensselaer, at Albany, was lately consumed by fire. Damages estimated at \$25,000.—On Friday, of last week, several valuable stores, in Norfolk, Va. were destroyed by fire, and a Mr. Talbot, in whose store the fire originated, perished in the flames, and several other persons were seriously injured.

The following appointments have been made by the President, and confirmed by the Senate, viz: General Jackson, minister to Mexico; Caesar A. Rodney, minister to Buenos Ayres; Richard C. Anderson, minister to Colombia; and Heman Allen, minister to Chili. A young married lady was lately killed in Westmoreland County, Va. while riding in a gig, by the falling of a tree upon the carriage. Two of her children and a servant maid were in the gig, and were providentially unhurt.

DIED.—In Cambridgeport, on Wednesday evening last, STEPHEN PYNCHON, Esq. Representative in the Legislature of this State, from Brimfield.

In Albany, Moses I. Cantine, Esq. senior editor of the Argus.

In New York, Mr. Joseph Tyler, aged 73, the oldest member of the Dramatic Corps in the U. States.



FOR sale at the Agricultural Establishment, No. 20, Merchant's Row, a general assortment of the most

APPROVED FARMING TOOLS—viz.

Harrison's Corn Shellers; Straw Cutters; double and single mould board Ploughs, of various kinds—Eetson's Cultivators—Bennett's Broad Cast Machine for small seed; extra cast steel broad and narrow Hoes—Foster's best English Shovels—Ames' back strapp'd do. Cam's English cast steel warranted Scythes and Hay Knives; Brush Scythes—Stevens' Patent steel spring Hay and Manure Forks—Brown's Vertical Wool Spinner, &c. &c. Boston, Jan. 25.

PRICES OF COUNTRY PRODUCE, &c.

[Revised and corrected every Friday.]

		FROM	TO
		D. C.	D. C.
ASHES, pot, 1st qual.	ton.	143 00	145 00
pearl do.		153 00	155 00
BEANS, white,	bush	90	1 00
BEEF, mess, 200 cwt.	bbl.	9 00	9 50
" No. 1.		8 00	8 50
" No. 2.		6 50	7 00
BUTTER, inspect. 1st qual.	lb.	14	15
" 2d qual.		12	13
small kegs, family,		16	17
CHEESE, new milk		7	9
FLAX		8	9
FLAX SEED	bush	1 00	1 10
FLOUR, Baltimore, superfine,	bbl.	7 25	7 50
Genesee		7 50	
Rye, best		4 25	4 50
GRAIN, Rye	bush	85	90
Corn		72	75
Barley		60	65
Oats		45	43
HOGS' LARD, 1st sort	lb.	9	10
HOPS, No. 1,		11	12
LIME	cask	1 25	1 50
OIL, Linseed, American	gal.	65	70
PLASTER PARIS	ton.	3 00	3 50
PORK, Navy Mess	bbl.	12 00	12 50
Bone Middlings		14 50	15 00
Cargo, No. 1,		12 00	12 50
Cargo, No. 2,		11 00	11 50
SEEDS, Herd's Grass	bush	2 00	2 25
Clover	lb.	8	9
WOOL, Merino, full blood, washed		65	75
do. do. unwashed		60	65
do. 3-4 do.		50	54
do. 1-2 do.		46	48
Native do.		37	40
Pulled, Lamb's, 1st sort		58	60
do. Spinning, 1st sort		50	

PROVISION MARKET.

BEEF, best pieces	lb.	8	10
PORK, fresh		5	6
VEAL		7	8
MUTTON		5	7
POULTRY		7	9
BUTTER, keg & tub		16	17
lump, best		20	23
EGGS	doz.	22	25
MEAL, Rye	bush	80	
Indian		80	
POTATOES		37	
CIDER, liquor	bbl.	1 50	
HAY, best	ton.	22 00	24 00

*The wearisomeness of what is commonly called a
Life of Pleasure.*

The spleen is seldom felt where Flora reigns ;
The lowering eye, the petulance, the frown,
And sullen sadness, that o'ershade, distort,
And mar the face of beauty, when no cause
For such immeasurable woe appears ;
These Flora banishes, and gives the fair
Sweet smiles and bloom, less transient than her own.
It is the constant revolution, stale
And tasteless, of the same repeated joys,
That palls and satiates, and makes languid life
A pedlar's pack, that bows the bearer down.
Health suffers, and the spirits ebb ; the heart
Recoils from its own choice—at the full feast
Is famish'd—finds no music in the song,
No smartness in the jest, and wonders why.
Yet thousands still desire to journey on,
Though halt and weary of the path they tread.
The paralytic, who can hold her cards,
But cannot play them, borrows a friend's hand
To deal and shuffle, to divide and sort
Her mingled suits and sequences, and sits
Spectatress both and spectacle, a sad
And silent cypher, while her proxy plays.
Others are dragg'd into the crowded room
Between supporters ; and, once seated, sit,
Through downright inability to rise,
Till the stout bearers lift the corpse again.
These speak a loud memento. Yet even these
Themselves love life, and cling to it ; as he
That overhangs a torrent, to a twig.
They love it, and yet loath it ; fear to die,
Yet scorn the purposes for which they live.
Then wherefore not renounce them ? No—the dread,
The slavish dread of solitude, that breeds
Reflection and remorse, the fear of shame,
And their invet'rate habits—all forbid.

Whom call we gay ? That honor has been long
The boast of mere pretenders to the name.
The innocent are gay—the lark is gay,
That dries his feathers, saturate with dew,
Beneath the rosy cloud, while yet the beams
Of day-spring overshoot his humble nest.
The peasant too, a witness of his song,
Himself a songster, is as gay as he.
But save me from the gaiety of those
Whose head-achs nail them to a noon-day bed ;
And save me too from theirs whose haggard eyes
Flash desperation, and betray their pangs
For property stripp'd off by cruel chance ;
From gaiety that fills the bones with pain,
The mouth with blasphemy, the heart with woe.

COWPER.

From the Northern Sentinel.

MR. MILLS—Having just read a small book, which has been published by Daniel Chipman, Esq. of Middlebury, entitled "An Essay on the Law of Contracts, for the payment of Specific Articles," I cannot refrain from expressing the satisfaction I have derived from the perusal of this work. It treats on a subject which is highly interesting to the people of this State, as from the circumstances of our being rather agricultural than commercial, contracts of this description are very common, and I might even say general, among us. There is a great degree both of elegance and simplicity in the style, and the questions treated upon, are discussed with more than common ability. The book is calculated to be useful, not only to lawyers and magistrates but to every man who is extensive-

ly engaged in the ordinary dealings of the community. Such productions ought to be encouraged, and I cannot but indulge a hope that the work will meet with a ready and extensive sale, and that the author will be liberally remunerated for his exertions in spreading useful and necessary information, before the people, particularly as the price is such as to prevent scarcely any person from becoming a purchaser.

JUSTICE.

Honey a cure for the Gravel.—A number of years ago, says a correspondent, I was much afflicted with the gravel, and twice in serious danger from small stones lodging in the passage. I met with a gentleman who had been in my situation and got rid of that disorder by sweetening his tea with half honey and half sugar. I adopted this remedy and found it effectual. After being fully clear of my disease, about ten years I declined taking honey, and in about three months I had a violent fit of my old complaint. I then renewed my practice of taking honey in my tea, and am now more than three score and ten, and have not for the last twenty seven years, had the smallest symptom of the gravel. I have recommended my prescription to many of my acquaintance and have never known it fail.—*The Corrector.*

Extraordinary Circumstance.—A Cow belonging to Deacon N. Adams, which had been missing forty days, was on Wednesday last, found in a passage about three feet wide, obstructed at one end, between two barns, in the vicinity of her owner's residence. She was greatly emaciated, and although found standing was unable to walk, and she died on Thursday morning.—There is no doubt that this cow went into this place about the time she was missed, and being unable to turn herself, and not having sagacity enough to back out, the poor animal remained the whole 40 days without a morsel of food, and suffering from the effects of extreme cold, snow, rain, &c. This is an extreme case of suffering. The fact of the cow having been in the same place the whole time mentioned, is ascertained by several persons, who state they had seen her there at different times, without attending particularly to her situation.—*Salem Register.*

From the Springfield Patriot.

The Spider, which is generally considered a disgusting insect, is in fact the most ingenious mechanic, the wisest philosopher, and the most infallible prophet among the works of Providence. However much this little animal may be exceeded in other respects by intelligent beings, yet in its power of prognosticating the state of the weather, it far exceeds all other animals of which we have any knowledge. Barometers and eudiometers have been constructed by men at great expense, and are among the proudest efforts of human philosophers ; yet, like the heathen oracles, their predictions are ambiguous and confused ;—not so the web of the Spider. It is a fact not generally known, though made public some years ago by a French philosopher, that the web of the common spider is a sure index of the state of the air for twelve or fourteen days to come. If the weather is to be fair and calm, the principal thread will be spun to a great length ;—if on the contrary the weather is to be stormy and

boisterous, the thread will be short and thick for obvious reasons ; and if the spider is seen to repair the damages its slender thread may happen to sustain, you may calculate with certainty upon pleasant weather for many days. If these statements are true, (and we make them not more confidently and positively than the who have attested their truth from actual observation) we have a barometer provided by nature, more to be depended on than the most ingenious contrivance of human skill, and to which all may have easy access.

A Quandary.—A sailor, travelling in New England, fell in company with a man possessing a full share of Yankee curiosity—who after many important questions, such as where he came from, where he was travelling, &c. observing his companion had lost an arm, enquired, "Pray, make bold as to ask how you lost your arm ?" "I'll tell you, says the other, if you want to hear another question."—"Well I won't, says he." "Then 'twas bit off," says the sailor. The honest yankee was about as bad off now as he was before. He kept silence for a few minutes, but at length, in an agony of impatient curiosity, but too mindful of his promise to ask the question direct, he burst forth with this ejaculation—"I wish I knew what bit it off."

LAW OF PATENTS FOR NEW INVENTION
CHARLES EWER, No. 51, Cornhill, Boston, has just published, "An Essay on the Law of Patents for New Inventions. By Thomas G. Fessenden, Counselor at Law. The second edition, with large additions, corrected and improved by the author."

This work is adapted as well to the use of the Artist and Mechanic as of the Lawyer. The whole was carefully reviewed in manuscript, and recommended by gentlemen of the first legal talents in New England. The Hon. Judge Story, in a letter to the author, served, "I have no hesitation in expressing my opinion that the book will be highly useful to all persons who are engaged in obtaining patents, or in vindicating them in Courts of Justice. The manuscript contains a collection of all the cases, on the subject of Patents within my knowledge ; and the principles contained in them are detailed with accuracy and fulness in the Summary at the conclusion. I know of no work so comprehensive as yours on the subject ; and it may be relied on as a safe guide."

The Hon. William Prescott, and the Hon. Daniel Webster, after perusing the manuscript stated their opinion as follows : "This edition is a great improvement on the first, and we think it will be a valuable and useful book to the profession, as it contains the statutes, and states, we believe accurately, all, or nearly all the decisions, which have been made on a branch of law, daily growing more interesting and important."

George Sullivan, Esq. a gentleman who has paid much attention to this branch of law, has likewise favored the work with a recommendation, from which the following is an extract :

"Your method of arranging all the decisions in the order of an analytical digest of the several requirements and provisions of our statutes for granting patents, is the lawyer at once in possession of the judicial construction of the statutes ; while your synthetic Summary, far more extended and comprehensive than the former edition, places within reach of the mechanic a sure means of judging whether his invention is the subject for a patent ; what is required of him by the statute in order to obtain his patent ; and what provisions are enacted for securing to himself and heirs, the meritorious privilege." Feb.

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No. 29.

DISEASES OF CATTLE.

SELECTED AND COMPILED FROM THE BEST AUTHORS,
BY THE EDITOR.

Foul in the Foot, or Hoof Ail.

Dr. Peck, an English writer, has given the following account of this disorder and its treatment.

"*Symptoms.*—A hard crack first appears between the claws, or hoofs, attended with considerable inflammation; afterwards a fetid and offensive matter is discharged, similar to that of the grease in horse's heels; sometimes it appears in the form of a large tumor upon the cornet, between the hair and the hoof, attended with violent pain and inflammation.

"*Treatment.*—Wash the part from all dirt, and if between the claws take a rope of a proper thickness, and chafe the part afflicted,* and afterwards dress the parts with the muriate of antimony [butter of antimony] or sulphuric acid [oil of vitriol.] Let the animal stand in a dry place for an hour, repeat the application every day. If the part be much affected, rub it with some stimulating ointment, and if the tumor be likely to suppurate, linseed poultices as oft as is necessary should be applied, and repeated till the inflammation has subsided; then dress the wound with lint and mild astringent ointment. Due regard must be paid to existing symptoms. A few doses of sodæ sulphas [glauher's salt] will cool the body and accelerate the cure."

Edward Skellett, Professor of the Veterinary art, an English writer of reputation, says that this disorder "proceeds from two causes; the one from accidents, and the other from a morbid state of the system. Its situation is *betwixt* the claws of the cow, either in the fore or hind feet, but more frequently in the former. It is always attended with a swelling, the discharge from which, when it breaks or cracks, has a very offensive smell.

The *accidental foul* proceeds from gravel, flints, bones, or any other hard substance getting between the claws, which produces great pain and inflammation. The first step to be taken for its cure is to remove the hard substance, and clean the wound out; then the following ointment is to be applied to the part, spread on tow, and bound on with cloth and string.

Soft soap	1 lb.
Common turpentine	1 lb.

"Melt over a slow fire till the two articles are completely united. The dressings may be repeated two or three times, which never fails to complete a cure.

"The *joint foul* begins with great pain, attended with inflammation and swelling betwixt the claws, and even up to the fetlock joint. The claws are extended outwards from the swelling betwixt them, and the animal is very feverish. The attack of the disease is very sudden.

"In this case bleeding will be proper; after which, give a dose of Epsom salts; then apply

* This practice is condemned by other writers as cruel and unnecessary.

a plaister of soft soap betwixt the claws. It must be repeated every two days till a large core come out, which is always the case in this disease before a cure can be completed. The wound may then be dressed with the following digestive ointment, in order to heal it.

Take of tar	1 lb.
Common turpentine	1 lb.

"To be put into a pipkin over a slow fire till it is completely dissolved, then take it from the fire and add to it four ounces of spirits of turpentine, which should be stirred well together till it is incorporated."

This disorder, or something very similar, has been prevalent in the United States, and particularly in the State of Maine. A communication on the subject is published in the Massachusetts Agricultural Repository, Vol. iv, No. 4, page 348. In this it is said that the immediate occasion of the Hoof Ail "is a stoppage of the issue between the claws or hoofs, which exist in all ruminating animals, and which are very much like the issues so generally known in the back part of the fore legs of pigs; the stoppage of which produces disease, and eventually death unless remedied.

"The hoof ail indiscriminately attacks thin and fat cattle, and very considerable impressions are entertained that it is contagious; therefore till the contrary is proved, it is safer so to consider it. From a very careful comparison of cases (from memory only) it appears to affect cattle who are in a feverish state, from various exciting causes; as over work; sudden changes from hard work to rest, and higher feeding, (a practice very common with farmers after working their cattle hard all winter, as a preparation for their spring's work;) being out in a storm; or being driven much, and kept long in the mud. In cows and young cattle, it seems to take either those that are brought from worse keeping to better; or the finest and best cattle in the yard. But all these observations may be erroneous; for the disease often appears suddenly, without any apparent cause; affecting individuals of the same stock tied in different parts of the barn, and in entirely different cases as to condition, exposure, &c. &c. It however, very frequently goes through a whole stock, though it does not appear to follow in regular succession, according to proximity in the stable, or in the yoke. This may arise, either from contagion or the same exciting causes, operating on the whole. In short, it is a disease very terrible in its effects at times, and which does not appear to be understood. As very few cases of perfect recovery take place in a violent attack, and, as in all cases the recovery is very tedious, we should rather *prevent* than *cure*; for which end we must carefully watch for the symptoms, and without delay apply the remedies.

"*Symptoms.*—When an animal is at all lame, its foot should be very carefully felt. The first indication is usually an uncommon degree of warmth, and soft and puffed feel of the parts immediately connected with the slit between the hoof, either before or behind the foot, and generally above it. If in the hind foot, and not

easily handled, a fulness may generally be perceived, by standing behind the animal and carefully comparing the appearance of the two feet, between the dew claws and the hoofs, (for it very rarely commences its attack on more than one foot.) In the fore foot it generally swells forward; and on taking up the foot, the slit between the hoofs will have the appearance of dryness, easily distinguishable to a person used to cattle; and the animal frequently licks the front part of the foot. Instances frequently occur of sudden and extreme lameness, without any appearance of heat or swelling in the foot; and these are often the worst cases; but one symptom rarely fails to accompany the disease, which is, extreme restlessness, and appearance of anguish, attended with loss of appetite and flesh; but without, in the least, affecting the brightness of the eye, and, perhaps, sometimes unnaturally increasing it; but the eye has a peculiar cast. As a general rule, it is safest to attribute all lameness of the foot, which cannot be traced to a sufficient cause, to the hoof ail. Lameness of the foot can generally be distinguished from that of the leg, hip, or shoulder, by making the animal step over a stick or rail, and carefully watching its motions.

"*Remedies.*—The foot should be carefully washed and cleansed, and thoroughly examined, to be sure that the lameness does not arise from a nail casually run into the foot, or a pinch in shoeing, or from a wound from a stump or other substance between the hoofs, (a case frequently occurring.) If no appearance occurs of any break in the skin, while the foot is still wet, apply, as nearly as may be, to the centre of the slit, between the hoofs, from one to three grains of corrosive sublimate (reduced to a fine powder) the dose to be proportioned to the size of the animal, and the violence of the attack.—Care must be used that the powder is put completely into this slit, for it is a very strong poison, and the animal, as soon as at liberty, will begin to lick the foot, if a sore one.* The moisture left by the washing, makes the powder adhere; and the effect is produced in a very short time. Some prefer mixing the powder with hog's lard, which answers; but is thought less powerful: it has one advantage, however, as being less dangerous to keep in a house (for no one takes salve inwardly.) Where corrosive sublimate cannot be obtained, any other violent stimulant may be applied. Common salt is often effectual in very slight attacks, but it is of the greatest importance to lose no time. The application is to be repeated once every twenty-four hours, till a cure is effected, or till the foot shows unequivocal signs of a gathering which will break. It is supposed that the corrosive sublimate, by stimulating the parts, removes the obstruction, and enables nature to resume the natural discharge from the issue, of a matter, which (as soon as pent up in the foot) causes inflammation and suppuration, and at last, forms an abscess, at all times very difficult to heal, and which, when large, takes

* Might not a rag or bit of leather be so fastened with a string as to prevent any danger of this sort?

off one or both hoofs, which are never properly replaced. It must, therefore, be considered as an object of the first importance to restore the secretion and discharge, without allowing a supuration. This done, the cure is effected; and, since the course has been followed, no bad case has occurred in a very considerable stock of cattle, and the men attending them are quite familiar with the cure. If, from want of attention, or the violence of the attack, the gathering is formed, and breaks, it must be treated like any other tedious ulcer, and without any violent or harsh measures. The animal should be kept quiet, fed well, and occasionally purged. As soon as the discharge has ceased, a salve of flower of zinc, and hog's lard appears to be the best dressing.

"It cannot be too strongly impressed on the minds of those who have the care of cattle that not a moment is to be lost; and that the corrosive sublimate produces no other inconvenience than pain for a few minutes, even if it should be applied in a case of lameness, which afterwards proves to have arisen from other causes.

"An account appeared last season, of the cure being effected by cutting off the point of the hoof with a chissel, till it bled considerably. Of the efficacy of this remedy, no opinion is given, as it has never been tried here; but the impression is not favorable, as it must occasion temporary lameness, and, in unskilful hands, prove something more than temporary.

"All such barbarous modes of treatment as hair ropes drawn backwards and forwards between the hoofs; hot irons; cutting out the part affected, and pouring into the wound, so made, hot pitch and other ingredients; scraping out the wound, and applying spirits of turpentine; in short all remedies of torture, should be at once discarded, and a simple mode of ascertaining the cause, and then removing the evil in the most expeditious and humane manner be substituted.

"No inconvenience is known to occur from keeping an ox at work, if the lameness is not so great as to impair his condition; and it generally yields to three or four applications in the foot where it began; but frequently it must be followed round all the feet in succession."

We have been the more particular in our description of this disorder, and the remedies recommended, on account of its alleged frequency in the United States. If the simple and cheap remedies recommended by Dr. Skellett, viz. soft soap, common turpentine, tar, and spirits of turpentine will answer the purpose, attributed to them by that writer, the discovery will be highly valuable.

From Sinclair's Code of Agriculture.

On the making of Watering Ponds.

Various modes of making ponds have been adopted, with a view of simplifying the process, and lessening the expense; but the improved practice, which, if followed, will be found to answer in almost any situation, in any country, is as follows:

Let a circle be marked on the ground sixty feet in diameter, more or less, as the person chooses, or the size of the pasture may require a supply of water, and if of that diameter, let it be hollowed out into the shape of a bason or bowl, to the depth of seven feet in the centre; when the surface of this hollow has been raked

smooth, let it be well beaten over, so as to reduce it into as even, uniform, and firm a surface as the nature of the ground will admit of: on this, well fallen, screened lime, must be uniformly spread, with a riddle, to the thickness of two or three inches; the more porous or open the ground, the greater will be the quantity of lime required; this lime must then be slightly watered, to make it adhere firmly to its place, and great care must be taken, to spread it equally, so that no place may remain uncovered, as on the lime, depends more than any thing else, the success of the work. On this lime must be laid a bed of clay, to the thickness of about six inches, which being moistened sufficiently to render it ductile, is to be beaten with mallets or beetles into a compact solid body, capable of being trod upon without impression or injury. Great care is to be taken in laying on uniformly this mass of clay, and beating it into a compact body; for which purpose, no more must be spread at a time upon the lime, than can undergo the beating, while it retains a proper temper or consistence for the purpose: after the whole is thus finished, it is gone over several times by the beaters, and sprinkled each time with water, and care is taken, to prevent any cracks being formed, which might entirely destroy the power of retention.

Pure brick-clay is not required, but any tenacious earth, that by beating will become a solid compact body, will answer the purpose. As soon as this operation has been duly performed, the whole surface of the clay is covered, to about the thickness of a foot, with broken chalk, fine gravel, or the chippings of mouldering stone, or limestone, to prevent any injury being done by the treading of the cattle. It is necessary to observe, that coarse stones must not be made use of, as they are liable to be displaced by the treading of cattle. They are also liable to be pressed into, or through the bed of clay, or to be rolled down to the bottom of the pond; under all which circumstances, the beds of clay and lime are liable to be broken, and the water consequently let out of the pond. Sometimes the clay is covered with sods, the grass side being laid downwards, as a support to the gravel, by which some saving of covering may be made; or several inches thick of common earth is laid upon them, or upon the clay without the sods, by way of bed for the covering, where gravel, or such like materials, may be scarce, by which, something may be also saved.

After the clay has been well beaten, some workmen water the surface of it, and fold sheep or pigs, for a considerable time upon it; the treading of which, is found to be serviceable in rendering it more compact.

Some people, instead of using slaked lime, have good mortar, made of lime and sand, well worked together, and cover the surface of the ground with it, to the thickness of about an inch; this, if carefully done, is thought to be the most effectual mode of rendering the bottom retentive; but the mortar is liable to crack before the clay gets bedded over it, which must be carefully guarded against. Ponds have been made, where a coat of mortar has also been spread over the surface of the clay, as well as under it, an approach perhaps as near as possible to perfection; but where lime bears an high price, the expense is thus considerably augmented.

The best season for making these ponds, is thought to be in autumn, as they are then likely to be filled the soonest, and the least liable to crack before they are filled. Should the weather prove dry at the time they are finished, it is well to cover their surface with straw or litter, to hinder them from cracking.

These ponds are usually made at the foot of some declivity, where, after heavy rains, a slight run of water may be conveyed into them, from some road, or other firm surface; but many are placed without any such assistance for filling, or with very little, it being found, that the rain that falls upon their surface is, in general, sufficient for a supply, after they have been once filled. As it is desirable to get them filled as soon as possible after they are finished, snow is frequently collected and heaped upon them, if possible in large quantities, the first winter after they are finished for that purpose.

Ponds of this kind, are usually made by what may be called professional people; men who go about for the purpose, and are chiefly or entirely engaged in it, and usually contract for the job. One of the diameter of sixty feet, and depth of six feet, may in most situations be executed for about 15*l*.; one of forty-five feet by five feet for 10*l*. or 12*l*.; but some allowance must be made for the different prices of lime, or the distance it may be necessary to convey it, as well as the clay, or the other materials for the work. A pond of sixty feet diameter, by six feet deep, will contain upwards of 700 hogsheads of water; one of forty-five feet by five feet, near 400 hogsheads—a vast supply, when obtained at so small an expense.

Experience now of many years, and the universal use of ponds in this district, wherever wanted, have proved them, when carefully made, so effectually to retain water,—to preserve it of so good a quality, when not fouled by the treading of cattle,—and to be applicable to many situations, that they cannot be too strongly recommended in all high situations, where water may be much wanted, or in all other situations where the water may be of bad quality: they are equally applicable to our dry wolds, downs and heaths, which are without water, as to every fenney tract which has too much of it, but of a brackish or unwholesome quality.

From Aikin's Athenaeum.

Account of a Successful Experiment in making Soap, by the operation of Steam, instead of an open fire; communicated by Count Rumford to the French National Institute.

The steam was conveyed into the vessel, which contained the lie and other materials for the soap, by a pipe arising from a close boiler, and again descending into the vessel; the action of the steam in condensing in the cold lie, occasioned a succession of smart shocks, similar to blows of a hammer, which caused the whole apparatus to tremble, but which gradually subsided as the liquid became warm. Count Rumford supposes, that the beneficial action of the steam depends for the most part on the motion described, caused by it, and therefore proposes dividing the vessel into two parts by a horizontal partition of thin copper, and causing a slow current of cold water to pass through the lower division, and to let the steam into this lower part, when the upper became too hot to admit of a continuation of the strokes from the con-

ensation of the stream; by which means the same motion being continued in the cold water, could be communicated to the hot liquid through this thin partition.

The soap made by the operation of the steam, required only six hours boiling, whereas sixty hours and more are necessary in the ordinary method of making soap.

From the Providence Journal.

In reading Simondi's Switzerland, I came across the following notice of a cotton mill which I saw at St. Gall, and which I have transcribed in your useful paper—it seems almost incredible that one ox should move so great a quantity of machinery; but whether true or not, it may suggest new ideas of the application of mechanic powers.

B.

"We were taken to the most considerable cotton mill of the place, set in motion, not by water, or steam; but the labor of an ox, acting as part of a turn-spit:—the poor animal, shut up in a wheel thirty feet in diameter, walks on its self-defence, as the wheel being once in motion, he must go with it, which he does very deliberately, resting his feet on brackets, or pieces of boards nailed across the revolving wheel. There are three oxen working by turns, each two hours; they last at this rate, two or three years; the power is sufficient to move twenty nine mules of two hundred and sixteen blades each (there were only twenty going when I saw it) with carding and cleaning machines in proportion."

From the American Farmer.

TO MAKE CIDER OIL.

This liquor is a very favorite drink with a large portion of our German citizens, and of an agreeable flavor, when diluted, to most persons. The following receipt has been communicated to the Editor, by a person well acquainted with the mode of compounding the liquor.

The cider must be well racked two or three times in clear weather. Four gailons of best apple-brandy are then to be added to each barrel of cider, if the cider be weak, but if it be strong, less will suffice. An infusion of Sassafras root, made by putting a piece of about the size of a finger, and chipped fine into a pint of water, improves the flavor. The barrel is then to be rolled.

In years when apples are abundant, cider even of a good quality brings only a small price; but by converting it into cider oil, it may be reserved until the following spring, and will then commonly sell well.

TO DRY PEACHES.

The following mode of drying peaches is adopted by Thomas Belankee, of Egg Harbor, New-Jersey:

He has a small house with a stove in it, and drawers in the sides of the house, lathed at their bottoms. Each drawer will hold nearly half a bushel of peaches, which should be ripe, and not peeled, but cut in two and laid on the shelves with their skins downwards so as to save the juice. On shoving the drawer in they are soon dried by the hot air of the stove and laid up. Peaches thus dried eat like raisins. With a paring machine, which may be had for a dollar or two, apples or pears may be pared, and a sufficient quantity dried to keep a family in pies,

and apple bread and milk, till apples come again. With a paring machine,* one person can pare for five or six cutters.

* An ingenious friend of ours, in Boston, promised to make us one of these machines, but we fear he has forgotten it.—Ed. Am. Farmer.

TO PRESERVE BACON SOUND AND SWEET THROUGH THE SUMMER.

Dear Sir—In the Farmer, volume 3, p. 139, you published a communication from Mr. J. W. Lincoln, of Worcester, recommending, that hams, after being smoked should be packed away in oats. I followed his advice last year, and really feel so much indebted to him for the hint, that I must thus publicly thank him; and for the benefit of my neighbors ask you to republish his letter. To give you the best proof of the beautiful state of preservation secured by this method, I send you a ham weighing 113 pounds; you will find it perfectly fresh, and full of essence—free from all sort of speck or blemish. Those practising this mode of preserving their bacon free from skippers or taint of any kind, should recollect, that the chest or cask, ought to be perfectly tight, and raised about six inches from the ground, and the oats packed in, quite tight. A ham of this size should be boiled 3½ hours at least.

☞ We can seldom undertake to speak from experience about recipes, but in this case we can vouch for its accuracy, from reliance both on the word and judgment of both the writers. But it must not be expected that the oats will convert bad bacon into good; all that is promised is that this will preserve it *in statu quo*.—Ed. Am. Farmer.

From the New York Statesman.

NORTHERN COTTON.

Messrs. Editors—I planted some of your cotton seed last summer, and distributed it among my neighbors, who did the same. The result has demonstrated the fact, so much doubted twelve months ago, that cotton can be raised in Connecticut, New York, and New Jersey, (and I believe in Canada,) of as good quality as is produced in any part of the world. From the shortness of our summers, compared with the season in tropical climates, however, I presume the quantity which could be grown in this latitude, would be inferior to the crops in the southern States, and that it can never, therefore, be an object of profitable cultivation with us. It appears that frost, which stops the progress of vegetation, and puts an end to the further growth of the plant, does not prevent the bolls or pods already formed, from ripening to perfection. Of a sample that I planted, the arrival of frost, ice and snow, found the bolls of every size, from the smallest complete formation to their full growth; and since that time, during the inclemency of the winter, their contents, or pulp, have matured into perfect fibre, and exhibit the most beautiful cotton, of shorter staple, but probably of finer and softer texture, than the Sea Island itself, the smallest bolls appearing to furnish the finest staple, though of diminished quantity. Like Mr. Dunham's, covered with ice and snow, they have matured with equal certainty as the same species at midsummer. Thus the probability of its growth in our northern latitudes is perfectly establish-

ed. Indeed I have heard of its cultivation in Connecticut, as a matter of curiosity, twenty years ago. From the information which has been given on this subject, it is probable that a number of gentlemen in this vicinity will plant a quantity of seed early the ensuing season, so as to try the experiment fully and fairly on a large scale, as to the practicability of its culture, and the ultimate profit of raising the article instead of importing it. I send you a number of bolls, taken from plants in this city, in February, two days ago, for the examination of connoisseurs in cotton. And I have no doubt, that before this day twelvemonth, the public will be in possession of complete and satisfactory information on the subject—a subject which has lately excited much interest in this country, but more, I understand, in France, where it is considered a desideratum to prevent the importation of the great quantities of that article required for the manufactories in that kingdom.

C. H.

Moths.—To prevent moths from attacking woollen clothes, or worms from destroying books, place in the drawers or corners of the shelves some of the roots or blade of the Sweet Flag. A decoction of the same will prevent their attacking buffalo skins, by sprinkling it over them. This is not only effectual for the above mentioned purposes, but is a pleasant aromatic.

Panada.—Boil for not more than two minutes some slices or crumbs of bread, with a blade of mace in a quart of water; then take out the bread, and finely bruising it in a basin, mix as much water as will make it a proper consistence. Put in a bit of fresh butter, grate a little nutmeg, and sweeten it to the palate. If wine be required, though it is much best without, by no means boil it with the water and bread.—This is a delicate diet for a weak stomach.

The Portland Statesman gives the following description of a Threshing and Winnowing Machine, invented by Mr. Josiah Jaquith, of Brunswick, Me. "By this instrument, the process of threshing, sifting and winnowing grain of any kind, is performed at one operation. The work commences by laying the grain in stalk, on the feed table. This table is supposed, in common machines, to be four feet long, but, for the purpose of preventing an interruption of labor when only one person is employed, may be extended to any designed length. The grain thus placed, is carried under the flails, which are so equably and exactly applied that it is almost impossible for any part of the grain to escape unthreshed. When the grain is threshed, it passes into a sieve which separates it from fragments of stalk, &c. From the sieve it falls in front of a fan, set in motion by the same power, and is winnowed. By lessening the feed, and substituting a tight floor instead of an open one, the machine will answer for cleaning clover and other seeds."

Weeds are deadly foes to the farmer, but in the compost heap they become friends. They should be carefully eradicated and deposited in the compost heap before their seeds have matured lest they should be propagated by scattering the manure before the seeds have become completely rotten.

From the Mass. Agricultural Repository for January.

On raising, feeding and fattening Cattle, also on the utility and comparative value of the cobs of Indian Corn when used with, or without the grain itself ground or broken.

To the Trustees of the Mass. Agricultural Society.

GENTLEMEN,

In the first place I select my earliest and best calves to raise, I let them suck the cow twelve weeks, which is my general rule. eight weeks twice a day and in sufficient quantity to keep them in a growing state, but am careful not to let them get fat. Four weeks longer, once a day, the two last however are allowed to take but about half the quantity of the two first; I keep a supply of good hay at their command all the while, as they will begin to eat when only a few days old, and then turn them out into good feed, without giving them any grain or meal. If I am raising a Bull, Cow or Ox, I would avoid giving them meal or grain; especially the first or second years, as I would a pestilence. I begin with a creature so as rise upon the keeping.* In one instance, however, I have followed opposite plan, which tends to confirm me more in my belief. In April 1820, I had an uncommon heifer calf, which I set down for a premium calf; I knew very well what I had got to do to obtain it, viz. to let it take what milk it would through the season and learn it to eat meal, which I did and presented it at the Worcester Fair, and obtained the first premium. I then tried to sell the calf, but could not; I considered it fit for nothing but the butcher's knife, and in fact not fit for that, it was neither veal nor beef. I then took it from the cow and put it to better than my usual keeping, but it lost its flesh and has appeared rather ordinary ever since, it appears to be crowded out of its natural shape. If I had reared the calf in my usual way I should have expected something extra from her, but I now do not. To return to my mode of increasing their keeping, I give them a little better hay the first winter than the second. I make it my care and attention that my cattle do not lose in the winter what they gained in the summer, which is too apt to be the case with some. I feed them as the weather varies, that is, in moderate weather they will not require so much, I endeavour to keep my barn tight and warm, I have witnessed with regret, farmers too often let their stocks of cattle remain out all day, through tempestuous stormy days in the winter, until they are chilled through, which must be very injurious, I take care that my cattle are sheltered from stormy days as much as possible. Fattening cattle is an employment which I like. I invariably aim to fat a creature as quick as I can. Every year since I commenced business for myself, which is fifteen, I have made one yoke of oxen good so as to command generally the highest market price; with almost all those which I have fattened, I go through with all my spring work then turn them to pasture; in the fall I lay a foundation for giving them meal with green stalks small ears of corn and vegetables of some kind, I begin to give meal about the first of December and drive them to market the latter part of January, they generally weigh from 25 to 28 hundred the

yoke, and from 300 to 330 pound of tallow. I would refer to Mr. Abijah White of Watertown, and Messrs. Davis, Miles and Pierce of Brighton who have generally purchased my beef. I give my cattle what meal they will bear; after I begin, they are allowed an average of three pecks per day for each yoke; by thus doing they will eat but little hay, I turn them out into the yard to lie during the night having a shed to go under at their pleasure which I consider far better than to remain in the barn. The kind of meal I have used for seven years past, almost exclusively for provender, is corn and cobs cracked and ground together, which is the best provender I have ever made use of for fattening cattle.* The reason I consider the cob useful, is, it swells in the creature and keeps him in good order; in no one instance since I have fed with this meal have my cattle been out of order by being cloyed or scouring, they are at all times regular, but when I formerly fed with clear Indian or oats and Indian, it was not unfrequent, that their bowels would get out of order, and I have had considerable difficulty in regulating them again, they lose two or three days, sometimes a week. When this kind of provender was first introduced in this vicinity it had its opposition like almost all new things, the second year, if I mistake not, which I made use of it, I thought I would try an experiment, as follows, by feeding one ox with corn and oats ground, the other with corn and cobs, having a yoke of oxen so even matched that no one who viewed the cattle appeared satisfied which was the best, accordingly I fed them as above. The cob is computed to make a little more than a third, therefore I mixed the other with one third oats which was my former mode, I gave each ox an equal quantity at a time except that the one that had the corn and oats, some days became dainty, and would not eat his allowance, while the other kept a regular course, the allowance for both was little rising three pecks per day. When I took the cattle to market Mr. A. White bought them, they weighed about 26 hundred and a half, the one fed on corn and oats had 162 pounds of tallow, and weighed about half a hundred more; the one fed on corn and cobs had 163 pounds of tallow and Mr. White pronounced his beef half a dollar on the hundred better than that of the other mostly on account of the color of the beef.

In another instance I took a yoke of oxen, which had done all my work through the season up to the first of November 1818, on my farm which contains over one hundred acres. They were a good sort of cattle, about middling size, and no more than in good working order. I then put them to fattening upon the cob and corn meal; they were fed with nothing but hay, and the corn meal, I turned them in the month of February 1819. Mr. White purchased them, their weight was about twenty-four and a half hundred and had almost three hundred pounds of tallow. I have however fattened two creatures a little differently from what I have above described, one was a steer four years old the 10th of February 1821, the first of March following I began to give him this cob and corn meal. He had not, previous

to this, ever been fed with any kind of meal grain or roots, of any kind whatever. I gave him from four to six quarts a day of this meal and nothing else but good feed until the 27th of September, which day I drove him to the Cattle Show at Worcester, and they awarded me the first premium on beef, I then drove him to the Brighton Fair the same year and they awarded me one of the premiums there on beef. I sold him, his weight was 1509 pounds, had one hundred and fifty-four pounds of tallow. I have another steer four years old the 12th of April last, which I have treated in the same way the past season, I drove him to Worcester the 25th of September of this year, and the trustees awarded me the second premium on beef. It has been remarked by some well informed Agriculturalists in this vicinity, that it is not on record at any other Cattle Show in this state, that the highest premium for beef has been carried by four year old steers, since the Worcester Agricultural Society was formed. There have been four anniversaries, in which I have taken the premiums for the best fattened ox for the second best do. for the best milch cow for the best two year old steer, for the best heifer from one to three years old, and for the best heifer calf, all of my own raising, and wholly of the native breed except the heifer calf which is a cross with DEXTON. I have now three creatures preparing for the Brighton market, which I contemplate driving the first of January, viz. the above mentioned steer will weigh between fifteen and sixteen hundred slaughtered, as he weighed two thousand alive in September last, and a cow that will probably weigh between eleven and twelve hundred slaughtered, and a three year old heifer nearly nine hundred, all of my own raising and fattening. Many of my friends are endeavoring to persuade me to keep the above steers another season for the Brighton Fair, at present I am undetermined. Before I close I would make a few remarks on corn and cobs. My aged father who still survives, upwards of eighty years of age, who has formerly raised considerable excellent beef from this farm to the Boston market, since he has witnessed the saving of labor, and seen the effects in fattening cattle, and hogs, has often been heard to say if he had known this thing when he first commenced business in the world, it would have saved him two or three hundred dollars. For my hogs, I mix oats with it, and it answers good purpose, it gets them along as fast as any provender I ever made use of, I see no material difference. It makes excellent fodder for a horse and is coming very much in fashion for that use. My faith is so great in the thing I would carry my corn six miles to mill to be ground in this manner even if I could get it ground in the common way within half a mile I submit these remarks for your disposal and consideration. ASA RICE, JR.

Shrewsbury, 20th November, 1822.

* We conjecture Mr. Rice means the one which obtained the premium at Worcester.

On Raising Corn.

To the Trustees of the Mass. Agricultural Society.

GENTLEMEN,

There is a high barren hill on my farm, which has been improved for a pasture ever since the

* We presume this means, so as to increase the quantity and quality of the food. Ed.

* We are by no means satisfied with the reasons assigned by Mr. Rice. The facts are what most concern us. Editor.

first settlement of the town, it had the appearance of making very good ploughing land, but in consequence of the steepness of the hill on every side, which rendered transportation so difficult, and supposing it bad husbandry to try to raise Indian corn without plenty of manure, one generation after another has passed off and suffered the hill to remain dormant. The present occupant being of the fourth generation of the same family in possession of the farm, hit upon an experiment of raising Indian corn with the aid of Plaster of Paris alone. I went on to the hill with my team in the month of September 1820, and ploughed as I supposed about two acres, and found it an excellent soil, a deep and good colored loam, free from stone, left it in that situation until the following spring, at which time I first gave it a harrowing, then cross ploughed and harrowed it again which left it in a fine state for planting. My neighbors began enquiring what I was about to do on the hill; I told them my plan; they said it was impossible, such a thing could not be done to advantage, that I should lose all my labor, but I was resolved to persevere in the experiment. I accordingly furrowed it in my usual way about a common pace asunder, dropped the seed, threw a common table spoonful of plaster into the hill, then covered it with earth which was all the manuring it had, except a slight quantity of ashes at the first time of hoeing. It pushed forward with greater rapidity through the season than my other corn where I manured very high, and at harvest time it appeared superior to any corn I had. Several of my neighbors kindly offered to assist me in harvesting and measuring the corn to know the result, we found by exact measurement there were ninety and a half bushels of shelled corn of an excellent quality, and by actual survey, we found there was one acre three quarters and twenty-seven rods of land, making almost forty-eight bushels to the acre; it was supposed to be the greatest quantity to the acre raised in the town, the last season, (it will be recollected the season for corn was not so good as the present.) The quantity of plaster it took, was about four hundred weight. The whole labor bestowed on the field exclusive of the harvesting was performed by one man and two small boys in fourteen days and one half. I presented this statement to the Worcester Agricultural Society, at their December meeting, and they awarded me a handsome premium and highly complimented me for my novel experiment. It was generally supposed that the strength of the land was exhausted, that it would not produce any thing farther unless it be very highly manured, which caused me to extend the experiment. I accordingly planted the same piece the present season, in the same manner, except adding a little more plaster, say a quarter more to the hill.

The same gentlemen who assisted me the last season in measuring the corn assisted me again, and we found by a careful and exact measurement there were one hundred and two bushels lacking two quarts, making over fifty-three bushels per acre. There are perhaps eight or ten acres on the top of the hill adjoining that I ploughed, which is so level, that it is very convenient working on it, which induces me the next season to sow this piece with oats and grass seed, with a good coat of plaster, and

plough up another piece and manage it in the same way.

I now present the doings of both seasons to the Massachusetts Agricultural Society for their consideration.

ASA RICE, Jr.
HENRY HOWE.

Shrewsbury, Nov. 12, 1822.

NOTE. We have taken the needful liberty of curtailing Mr. Rice's letter. We hope without offence, and we are sure we have not lessened its perspicuity or usefulness. Editor.

FOR THE NEW ENGLAND FARMER.

From a general view of the evidence and arguments presented to the public by the Hon. Mr. Pickering, on the best time for "*felling trees for timber*," he appears to have established the important fact, beyond a reasonable doubt, that white oak timber, felled, or stripped in barking time, will be stronger, more compact, and nearly twice as durable as timber felled in the winter season. The experiments of Mr. Poor, also, go far in confirming what Mr. Pickering had proved.

Can there be a doubt but the same means which produced this extraordinary strength, compactness, and consequent durability in oak, would be productive of similar effects in pine, and every other sort of timber? We can hardly imagine a discovery of more importance to every section of our country, than the certainty that by merely felling their timber at a particular season of the year, their bridges, fences and buildings of every kind, would last nearly double the usual time.

On a moderate calculation, it would cost the inhabitants of Massachusetts more than six millions of dollars to renew all the shingles on the roofs of their buildings. The shingles in use are chiefly made of white pine, felled in the winter, and are estimated on an average, to last about twenty-five years. Hence the expense of the annual wear and waste is no less than \$250,000. If shingles made from white pine stripped of its bark in June, would become so compact, and unpassable to the wet, as to last many years longer, the saving to the inhabitants of Massachusetts alone, must be no less than \$250,000 for every year beyond the time they usually last.

If any gentlemen conveniently situated, will take on themselves the trouble of making a fair experiment of the durability of pine shingles made from trees stripped of their bark in June, compared with common shingles made from trees felled in the winter, and publish the result, they will certainly merit the gratitude of their country.

The highly respectable Mr. Cooper, late of New Jersey, is said to have "pronounced with great confidence, that oak and hickory trees felled when their sap was vigorously flowing, would not be attacked by worms, producing what is called powder post." The cause of this exemption from the depredation of worms, is probably the same as that of its extra-durability.

Sir Humphrey Davy tells us in his "*Elements of Agricultural Chemistry*," that "Mr. Knight examined the albumin in different poles of oak in the same forest: of which some had been felled in winter, and others in summer; and he always found most soluble matter in the wood, felled in the winter, and its specific

gravity was likewise greater."* This being the case with the *albumin*, or sappy part of the wood, there can be no doubt of a somewhat similar difference in the heart part of the wood.—The foregoing premises being admitted, we may conclude that timber felled in winter while replete with inspissated sap, after being thoroughly seasoned, will, of consequence be found easier to work, because more porous, or spongy than that felled in summer, while the sap is both scanty and limpid: but the wood of the latter soon becomes more hard, strong, and compact, and consequently more durable: and will never be bored by worms, because it contains no nourishment for them. In timber felled in the winter, after being thoroughly seasoned, the essence or saccharine matter of the sap, still remains in it, a nutritious and palatable food for various kinds of worms, both on land and under water; and these worms evidently gain their living as they progress, from the wood they reduce to powder. The vessels of the winter-felled timber, so replete with sap when felled, are believed to continue open, and, like a sponge remain susceptible of imbibing water whenever exposed, which inevitably produces fermentation and gradual decay.

Speaking of timber stripped of its bark in June, Sir H. Davy says:—"The reason of the superiority of this timber is, that the concrete sap is expended in the spring in the sprouting of the leaf; and the circulation being destroyed, it is not formed anew; and the wood having its pores free from saccharine matter, is less liable to undergo fermentation from the action of the moisture and air." From a view of the testimony and argument adduced, in connection with the mass of evidence before the public, we may fairly conclude that the true cause of the extraordinary durability of timber stripped, or felled in barking time is this, that when seasoned it becomes so compact as to be impervious to the wet: and also, that it remains secure from the depredation of worms, because it contains no saccharine matter for them to subsist upon.

J. KENRICK.

* The subscriber is taking effectual measures for ascertaining the exact difference between the specific gravity of various kinds of green timber, in the month of February, and the latter end of June. The result will probably be published.

Ants.—The Rev. Wm. Williamson, of Westmere, near Canterbury, in England, communicated an expeditious method of destroying Ants, which may be easily adopted where those insects become troublesome, or are injurious to plants. He stops the holes at the bottom of small pots, and places them inverted on the spot frequented by these insects, which soon take possession of the interior of the pots, and may then be easily destroyed therein, by hot water. The ground whereon the pots are placed, should be kept rather moist. There are two sorts of ants which are found in forcing frames, the red and the black; the former are easily got rid of by introducing the large black ant of the woods, which will leave the frames when the red ants are destroyed, but they are not able to overcome the latter: for the removal of these, the above remedy has been efficacious.

To turn Wine into Vinegar in one hour.—Make a thin round cake of the best rye flour and the

strongest vinegar. Bake it quite dry in the oven; then pound it into a fine powder, with which and vinegar make another cake, and bake it as formerly. Reiterate this operation three or four times; then hang the last made cake quite hot in a cask of wine, and it will turn the whole into vinegar in less than an hour.

Texus Wood, or yew tree, thrown into wine, will soon change it to vinegar. Red Beet has the same tendency.

To increase the strength of Vinegar.—Boil two quarts of good vinegar till it evaporates to one. Put it in a vessel, and set it in the sun for a week; then to one part add six of weak or indifferent vinegar, and it will make it strong and agreeable.

To revive old writings.—Boil gall nuts in wine, then with a sponge dipt in the liquor, pass it on the lines of the old writings, when it will appear as fresh as if newly done.

To prevent wine tasting of the cask.—Stick a lemon full of cloves, and hang it at the bung hole, over the wine for three or four days, during which the air must be prevented from getting into the cask.

To clarify new wine.—Hang a bag full of fine and thin beech shavings at the bung-hole for two or three days. If the wine is red, it may be made white by adding a quart of clear whey to the cask.

To restore turned wine.—Half a pound rock alum in powder; the same quantity of sugar of roses; 8 pounds of honey, and 1 quart of good wine, mixed well together, and then put into a cask of wine, stirring while it is poured in. Leave the bung out for one day; then replace it, and two or three days after the wine will be clear.

A handful of parsley put into a bag, and hung for a week in the bung-hole of a cask of wine, will correct any bad flavor it may have.

A bag of leek seed, or of the leaves and twist-ers of the vine, put into a cask of wine to infuse, will restore it if it is sour or sharp.

A handful of steel filings, and another of salt, tied up in a bag, and placed on the bung, will prevent wine from being hurt by thunder.

Employment of Iodine for the Relief of Cancer.—We have heard that Iodine, in the form of Alcoholic solution, duly diluted with simple syrup, has been used with success in one of the Paris Hospitals, allaying the pain and increase of a cancerous tumor in the breast; but we have been unable to obtain from our correspondent any satisfactory particulars of the case; we, therefore, merely throw out the rumor for the consideration of our medico-surgical readers.—*Journal of the Royal Institution*, No. 27.

Railor Silenced.—A woman stopped a divine in the streets of the metropolis, with this salutation: "There is no truth in the land sir! there is no truth in the land." "Then do you not speak truth, good woman," replied the clergyman. "O yes, I do," returned she hastily. "Then there is truth in the land," rejoined he as quickly.

THE FARMER.

BOSTON:—SATURDAY, FEB. 15, 1823.

THE AMERICAN ORCHARDIST.

We have perused with much pleasure, and we hope not without profit, a work entitled "*The American Orchardist, or a Practical Treatise on the Culture and Management of Apple and other Fruit Trees, with Observations on the Diseases to which they are liable, and their Remedies. To which is added the most approved Method of Managing and Preserving Cider. Compiled from the latest and most approved Authorities, and adapted to the use of American Farmers.*" By JAMES THACHER, M. D. Fellow of the American Academy of Arts and Sciences, and of the Massachusetts Medical Society, &c. &c." Boston: published by Joseph W. Lograhram; pp. 236, 3 vo. price \$1.25. [The work may be purchased at any of the principal Bookstores in Boston.]

This work has been recommended by the Officers of the Massachusetts Agricultural Society, who have unanimously affixed their signatures, as individuals, to the following testimony of their approbation.

"We have perused, at the request of Dr. Thacher, his Treatise on the Culture of Fruit Trees, and the Art of Making Cider; and although we cannot hope that our opinions will have any great weight with the public, yet as the author is desirous that we should express them, we have no hesitation in saying, that it appears to us an excellent compendium of all that has been written on the subject—comprising, within a moderate compass, the result of the observations of the experienced cultivators of Europe, and of this country—with many original suggestions of his own—and we believe that such a work will be of great value to those who wish to obtain a knowledge of this branch of agriculture, but who cannot have access to the original sources, from which, with great labor, and, as we believe, good judgment, this compilation has been formed."

We have copied this recommendation, at length, because it has that weight which attaches to the opinions of gentlemen, who are eminent for practical, as well as scientific knowledge of agriculture and horticulture; and because the merits of the work could in no other words be more concisely, and at the same time more fully expressed. We believe that any person who has even no more than half a dozen fruit trees to cultivate, would save money by buying this book and making himself acquainted with its contents; and every house-keeper who would wish to make the most of one of the cheapest, as well as one of the best gifts of Providence to mankind, would find his or her account in becoming possessed of this compendium of valuable information relative to fruit and fruit trees. A knowledge of the medical properties of apples alone [see Orchardist p. 12] is worth to house-keepers five times the price of this book. As an article of diet, when properly chosen and judiciously cooked, they yield perhaps to no vegetable substance, except the potatoe. Sweet apples, in particular, are a wholesome, cheap and very palatable food for man and beast. The liberal use of fruit counteracts that debilitating, degrading and demoralizing hankering after spirituous liquors, which foreigners, (we fear with some truth,) have declared to be a national characteristic of the American people. But we must refer to Mr. Thacher's book for the various uses of fruit (some of which, we dare say, many good people have never thought of,) as an article of commerce, as well as domestic consumption.

We believe that nothing can prevent the general circulation of Dr. Thacher's American Orchardist, except that kind of economy (falsely so called) which by "withholding more than is most tendeth to poverty;"

or a prejudice, which we fear is too general, against every kind of information which comes in the shape of a book, or appears in print. But what is this book knowledge, which some farmers seem to think worse than profound ignorance? In agriculture, it consists of facts and observations, derived from experience and reason, and recorded first in writing, and then printed. Nobody objects to acquiring the rules of arithmetic, geometry, surveying, and the precepts of morality and religion, from books. And why may not the rules of agriculture, gardening, and those in particular which have reference to the management of fruit trees, be set down in black and white, and sent to the press? If a farmer knows, better than the book can tell him, how to manage with regard to any particular point or matter set forth in the book, let him make use of his own knowledge, in preference to that in the book. The book only advises, it does not dictate. It furnishes, at a cheap rate, materials for the farmer's own mind to work upon. Pope says,

"What can we reason but from what we know."

And what can we know if we know nothing excepting what we have done ourselves, seen other's do, or heard our neighbors talk of, in comparison to what we may know by having the experience of ages presented to our view in a book? Besides, if a farmer knows better than a book teaches, if he is a genuine patriot and well wisher to mankind, he will in some way communicate his knowledge to the author, or some editor of a newspaper, in order to have the mistakes in the book corrected against another edition. In short, there can be nothing said against book knowledge in agriculture, which may not as well be said against books relating to law, physic, or even divinity, which are (at least now-a-days) all written by fallible men.

But it is time to conclude our dissertation on book knowledge, and this notice, with a quotation from the work before us.

"It is a remarkable fact that the first planters bequeathed to their posterity a greater number of orchards, in proportion to their population, than are now to be found in the old colony; and it is no less notorious that the children have substituted a poisonous liquor for the salutary beverage, which almost exclusively cheered the hearts of their virtuous ancestors.—The views of men are often materially affected through mere indolence of temper, no less than through the cloud of prejudice. Averse to the labor of reading and inquiry, they adhere pertinaciously to the routine of their predecessors, and treat with equal contempt the lessons of experience, and all suggestions of improvement. It is not, however, desirable that former modes of practice in husbandry should be abandoned until it shall be incontestably proved, that a system more adapted to our circumstances, and in all respects of superior utility, can be founded on the surest basis. It is not to be required of our farmers to subject themselves to the expense and uncertainty of novel experiments; but he who possesses capital and leisure, and who, in the spirit of investigation, shall put in execution a hundred new projects, although in ten only shall he be successful in the acquisition of useful knowledge, will be entitled to public praise and respect. These pages contain no speculative or visionary projects, nor recommend any untried experiments. Although a portion of information is derived from European authors, no inconsiderable part of it has been collected from the practical experiments and observations of our own countrymen. There is, therefore, no part of this production but what may be adopted as applicable to our climate, and calculated to promote the interests of the cultivators of our soil. The knowledge respecting the proper management of fruit trees is contained in numerous volumes, and in incidental papers, published in periodical works. My object has been to collate and embrace all the principal circumstances relative to the subject, and condense the whole into a small compass, that shall be accessible both to the pecuniary means of all, and to the intellectual powers of the most ordinary capacity. The authorities to which I am chiefly in-

abited, are the several encyclopedias, Forsyth on Fruit Trees, and the valuable periodical publications of your society, and various other similar productions. If, in a few instances, it shall appear that I have employed borrowed language without marks of quotation, my apology is, that I have copied from minutes collected at various times, without reference to the source whence derived; not that I would wittingly pilfer the cultivated fruit of others, and impose it upon my guests as the result of my own industry."

COMMUNICATION.

Mr. Kenrick appears to have misapprehended Mr. Pickering's statements in regard to the worms which prey on timber. It is well known that the sea-worms eat hard pine and white pine and white oak—and doubtless most other kinds of wood—placed or used in sea-water; and hickory was mentioned as one exception; but without any reference to the season of the year when felled. It was Mr. Joseph Cooper's assertion, which Mr. Pickering recited, that white oak and hickory poles intended to be split for hoops, should always be cut when the sap was running freely, because then they would not be infested with the worms which produce what is called "powder-post." And this assertion of Mr. Cooper's was confirmed by a distinguished mill-wright in Pennsylvania, who, for the same reason, directs hickory, designed for the cogs of wheels, to be cut when the sap is running freely in the spring. His powder-post worm has no relation to the worm which is bred in sea-water.

In Mr. Pickering's address published in our last, page 221, 1st col. 18th line from bottom, for "sown in it them," read "ploughed in," &c.

FARMER SUMMARY OF NEWS.

CONGRESS.—SENATE.—A bill has passed the Senate for appropriating \$1000 for the erection of a monument over the tomb of the late Vice President Gerry. A bill has also passed to be engrossed appropriating \$10,000 for the purchase of apartments for the commodation of the U. S. Circuit Court in Columbia district. A resolution was offered by Mr. Smith, of d. and agreed to, that the committee of Finance be directed to inquire into the expediency of admitting silver coins of Mexico as a currency in the United States at their true value. A new bill was reported on the 4th inst. for abolishing imprisonment for debt. A bill to punish frauds committed on the Departments of government was read twice and referred.

HOUSE.—A committee on the subject made a report quitting Messrs. Gales & Seaton of all blame imputed to them for having omitted to print some parts of certain documents sent from the Department of the Treasury. The Committee likewise stated that they could obtain no satisfactory information with regard to the omission complained of. This report was ordered to lie on the table. A bill supplementary to the existing acts to provide for revolutionary pensioners passed the House and was sent to the Senate for concurrence. The new Tariff bill has been debated at great length, and no decision was had at the date of our last accounts.

THE MASSACHUSETTS LEGISLATURE closed its session on the 11th inst. Among the most important public acts which have been passed, are an act to apportion and assess a tax of \$75,000—an act authorizing the Governor, with advice of Council, to appoint an agent, or agents, for advocating, at Washington, the claims of Massachusetts upon the United States for the expenditures for militia services during the late war—an act in addition to the acts for regulating, training, and governing the Militia, which provides that the militia shall be called out only twice a year, but the officers, in addition, are to appear three times for drill—an act in addition to several acts now in force regulating the limits of prison-yards and the discharge of poor debtors now in prison. This provides that the prison limits in Suffolk county shall be co-extensive with Ward No. 5, as now defined, and in all other counties in the State not beyond fifty rods from the jail. It provides, also, that all persons who do not apply for discharge from imprisonment within ninety days from the time of their commitment, shall be put into close confinement and there kept until discharged by due course of law. The thanks of the Senate were pre-

sented to the Hon. John Phillips, President of the Senate, and those of the House to the Hon. Levi Lincoln, Speaker of the House, and appropriate answers were returned by each.

FOREIGN.—By an arrival at New York on the 9th inst. London and Liverpool papers have been received from the 19th to the 30th Dec. These give rumors of meditated hostilities between France and Spain. The French monarch, however, appears to be disposed to maintain peace between the two countries. But the other members of the Holy Alliance, particularly the Emperor Alexander, seem determined to interfere with the internal concerns of Spain, and force the Cortes to restore the ancient order of things. The internal situation of Spain is said to be very deplorable. The remnants of the army of the Faith have formed themselves into bands, which harass the troops of Mina. The recruiting of the Spanish armies is proceeding with vigor, and the manufacturing of arms of all descriptions is going on with great energy.

An article from Madrid, professing to be official, states, that an alliance offensive and defensive, has been concluded between Spain and Portugal, under which, the latter is to furnish 8,000 troops to the Spaniards, and the force is to be increased as occasion may require.

The affairs of the Greeks are said to be, on the whole, prosperous. Mr. Canning, the British Minister, it is said has sent a declaration to the Porte, that the Grand Seigneur must render the Greeks independent, or England must take them under her protection. There have been some changes in the Turkish ministry, which threaten a war with Russia.

Canaris, a celebrated Greek Captain, with two fire ships on the 10th of Nov. at 7 o'clock in the evening, made an attack upon the Turkish fleet, and burnt the Admiral's ship with such rapidity, that out of the whole crew, not more than 20 or 30 escaped; two frigates were likewise consumed. This captain, in the excess of his ardor to hasten the explosion of the fire ship, took up burning coals with his hands, which he threw upon the fire ship, and his hands were severely burnt. The Greeks have declared a number of ports in the Mediterranean in a state of blockade, and the English commanders have ordered the declaration to be respected.

DOMESTIC.—The important question of the right of a state to grant the exclusive privilege of steam boat navigation upon its waters is to be argued before the Supreme Court of the U. S. sitting at Washington.

The *Life of James Otis*, by Wm. Tudor, Esq. has just issued from the press of Messrs. Wells & Lilly, of this city. The work is highly spoken of by adequate judges, and is said to be well written and to contain much valuable information.

At the Municipal Court in this city, on Wednesday last, Edward P. Perley was sentenced to five days solitary imprisonment, and five years hard labor in the State Prison.

A store occupied by Messrs. Heywood & Fisher, No. 4, Central-street, Boston, was forcibly entered on the night of the 8th inst. and a large quantity of goods was stolen therefrom.

On Friday morning last, the Woollen Factory at Northampton, belonging to J. & C. Cook, was destroyed by fire, with all its contents. The amount of loss is about 12,000 dollars, and there was no insurance.

American Iron.—The Bennington (Vt.) Gazette assures us that an extensive establishment is in successful operation in that place for the manufacture of iron; and that the pigs are pronounced by competent judges to be equal, if not superior to any iron made in the U. States. A vein of soft chrysalized and semi-transparent stone has likewise been discovered in that town, which has been found to be more useful in fluxing iron in the furnace, than any other ingredient that has ever been tried.

The Pioneers, a new novel from the pen of the celebrated author of "The Spy," has recently been published in New York. The work sold with a rapidity unprecedented in the annals of American literature. We have not seen the work, but judging from pretty numerous extracts, which we have seen, we should believe the book fully merits the rapid sale which it has met with.

A young man by the name of Tompkins, who lived in Ottawa District, U. C. lately set out, in the morning,

to travel through a forest with a loaded Traineau and four children of one of his brothers. The weather changing to a storm, and his horse becoming tired, he left the children with the horse, to seek assistance at the nearest habitation. On the return of the party, the three youngest, who were boys, were found frozen to death, and the eldest, a girl, ten years of age, was so much frozen that the loss of her feet was apprehended.

Two persons, named Reuben Craft and Abraham Mead, were found frozen to death at Redmill, Delaware county, N. Y. It is thought that they got lost in the night, in attempting to go through a thick wood about three miles in extent.

On the 25th of January, as Mr. Peter Demarest, of Newfoundland, N. J. was fixing a flint in his gun, it accidentally went off, and the contents entered the side of his wife. With a solitary exclamation—"Peter, you have hurt me," she fell and immediately expired. This fatal accident has so deeply affected the mind of the wretched husband, that it was feared he would be deprived of his reason.

A cow of the Bakewell breed, belonging to Widow Sarah Hoyt, of Sandwich, N. H. on the 14th January, brought a bull calf, which was very handsome, well proportioned, and weighed the same day 142 pounds.—*N. H. Patriot.*

A sugar house in Love-lane, New York, owned by Mr. Henry Willett, was destroyed by fire on the night of the 25th ult. together with the stock amounting to upwards of \$6000.

PRICES OF COUNTRY PRODUCE, &c.

[Revised and corrected every Friday.]

		FROM	TO
		D. C.	D. C.
ASHES, pot, 1st qual.	ton.	145 00	148 00
pearl do.		155 00	157 50
BEANS, white,	bush	90	1 00
BEEF, mess, 200 cwt.	bbl.	9 50	10 00
cargo, No. 1.		8 50	9 00
" No. 2.		7 00	7 50
BUTTER, inspect. 1st qual. . .	lb.	14	15
" 2d qual.		12	13
small kegs, family, . . .		16	17
CHEESE, new milk		7	9
FLAX		8	9
FLAX SEED	bush	1 00	1 10
FLOUR, Datmore, superfine, .	bbl.	7 25	7 50
Genessee		7 50	
Rye, best		4 25	4 50
GRAIN, Rye	bush	85	90
Corn		72	75
Barley		65	70
Oats		45	43
HOGS' LARD, 1st sort	lb.	9	10
HOPS, No. 1.		11	13
LIME,	cask	1 25	1 50
OIL, Linseed, American . . .	gal.	65	70
PLASTER PARIS	ton.	3 00	3 50
PORK, Navy Mess	bbl.	12 00	12 50
Bone Middlings		14 50	15 00
Cargo, No. 1.		12 00	12 50
Cargo, No. 2.		11 00	11 50
SEEDS, Herd's Grass	bush	2 00	2 25
Clover	lb.	8	9
WOOL, Merino, full blood, washed		65	75
do. do. unwashed		60	65
do. 3-4 washed		50	54
do. 1-2 do.		46	48
Native		37	40
Pulled, Lamb's, 1st sort . .		58	60
do. Spinning, 1st sort . . .		50	

PROVISION MARKET.

BEEF, best pieces	lb.	8	10
PORK, fresh		5	6
VEAL,		7	8
MUTTON,		3	7
POULTRY,		7	9
BUTTER, keg & tub		16	17
lump, best		20	23
EGGS,	doz.	23	25
MEAL, Rye,	bush	90	
Indian,		80	
POTATOES,		37	
CIDER, liquor,	bbl.	1 50	
HAY, best,	ton.	22 00	24 00

THE SLEEP OF THE SLUGGARD.

BY T. G. FESSENDEN.

O list to an indolent lump of live lumber,
Whom slothfulness binds with invisible bands,
"A little more sleep, and a little more slumber,
A little more folding together the hands.
"I've a villainous cold—and my head—how it aches!
The north wind is blowing, and stings like a hornet,
And as to this rising as soon as day breaks,
'Tis a vile vulgar habit, and gentlefolks scorn it.
"I'm none of those wretches who labor for bread
Through foul or fair weather, whatever may hap;
I mean to enjoy both my table and bed,
And so I'll turn over and take 'tother nap.
"I've money enough, and can live at my ease,
I cannot be caught in necessity's trap,
I'll sleep every day, till the next, if I please,
And so I'll turn over and take 'tother nap."
His heavy, hydropical carcass he turns,
And sinks in uneasy, intemperate rest,
Till dim in his bosom the lamp of life burns,
While snorting with night-mare, and plethora prest.
What horrible visions his bed hover o'er,
The phantoms of spleen, and the blue devils dire!
Like Gorgons and Hydras of fabulous lore,
And red dragons vomiting rivers of fire!
Now clings to the side of a prominent steep,
O'er a rough, roaring cataract hangs by a hair,
Now suddenly sinks in a bottomless deep,
And starts, half awake, with a shriek of despair.
Thus rolls, like a porpoise, o'er billows of down,
Grows big as a mammoth, and fat as a seal,
Lives a plague to his friends, or a charge to the town,
And dies to make worms a most plentiful meal.
Ye sons of Columbia, shun the syren of sloth,
For if you submit to her leaden control,
You'll find, when too late, like a venomous moth,
She eats up the substance, and poisons the soul.
If the wizard of indolence takes you in hand,
Quick break from his grasp, or you're quickly undone,
Your limbs will be lithe as a wickap* wand,
And your sinews be soften'd, like wax in the sun.

Wickap is the popular name for a shrub, which is remarkably flexible.

WIT.

Of those who claim it, more than half have none,
And half of those who have it are undone.

Natural History.—A traveller was talking of having seen, in some foreign country, bed bugs, so large and powerful, that two of them would drain a man's blood in a night. Sir John Doyle, to whom this was addressed, replied, "My good sir, we have the same animals in Ireland, but they are known by another name. We call them *lunbugs*."

The difference between long-tailed, and short-tailed horses.—The following singular advertisement was painted in large letters on a board, placed on the side of a field, in the neighborhood of Greenwich, Eng.

"Good grass for horses. Long tails, three shillings and sixpence per week; short tails, two shillings and sixpence per week." The difference in the charge was made because the long tails can whisk off the flies, and eat at their leisure, while the short tails are running about from morning till night.

He that does not give his son a trade or a profession, learns him to be a knave, and perhaps a thief. This, more especially holds good as respects the children of the poor. Poor children that are brought up neither to a trade, nor any regular occupation, are laid under a sort of necessity to become rogues for a livelihood.

There is a labor of the mind as well as of the body, and some employ themselves very usefully to society, who do but little with their hands. But the labor of the body, if not excessive, strengthens the mind, and those who do not labor from necessity, should labor for health.

From the American Daily Advertiser.

MR. POULSON—Seeing an account of some microscopic animals, found in pepper, water, &c. in your paper a few days ago, I take the liberty of adding some observations, extracted from different authors concerning this minute part of the creation. Parts of insects, scales of fish, animal and vegetable infusions, are very interesting objects for microscopic observation. The illustrious naturalist, Swammerdam, had a more perfect apparatus than any one of the age in which he lived. His apparatus, I think, is now in the Royal Society, and it is said to have about 300 different magnifiers; he manufactured most of his utensils himself. His "chief art," says Mr. Samonelle, "consisted in manufacturing scissors of exquisite fineness, with which he was able to dissect the smallest insects; and the intestines of bees." I shall commence by drawing the reader's attention to certain small vermiform animals, found in vinegar, which may sometimes be discovered even by the naked eye. These are interesting, and are always to be had without either expense or trouble. Animals, almost exactly like them, may be found in paste, when kept until sour; and by keeping the surface of the paste continually moistened, they may be preserved for almost any length of time. The next kind are minute animals, of various forms, found in an infusion of hay. These are always to be had, as every one has it in his power to obtain them, by placing some hay in a vessel of water, and letting it remain exposed to the sun's heat until a pellicle be found on the surface, in which myriads of these animals may be found. An innumerable quantity of animals, so small as to require the aid of a microscope, may be found in sea water. All of those who have witnessed that beautiful phenomena, of the sea being luminous, may not know that this appearance is owing to small jelly-like bodies, which are phosphorescent, or have a luminous property: by the assistance of the microscope, these animals are found to possess a mouth, stomach and intestines; but their extreme minuteness renders their dissection and examination very difficult. In the water of ponds and ditches, and all stagnant water, animalculæ are found in abundance. Those small insects, &c. which inhabit pools and standing waters, may be procured by means of a net, made sufficiently open to suffer the water, but not the insects, to escape. The mud must be brought up from the bottom, and in it many interesting animals are found, which may be picked out and put into a phial of clean water; by this means, they may be kept alive. In fact,

there is scarcely any part of the creation which does not afford an extensive field for microscopic inquiry. W.

From the Village Record.

A distant correspondent has sent us quite a curiosity; a LOVE LETTER; not one of your modern, whining, crying and blubbering epistle, talking of flames, broken hearts, and dying, and all that, but a good old fashioned letter such as our proud spirited grand mothers used to write to swains when faithless. Now-a-days, forsooth if a lover leaves his own mistress for a new one he likes better, the melancholy, broken-hearted dame brings in her action for something like thousand or two dollars, and solaces herself for the loss of a lover's person in the hope of good portion of his wealth. ELIZABETH MATTHEWS was a girl of spirit, an honor to Beverly, and a praise to old Massachusetts. Such women were fit to become the mothers of soldiers—I warrant it, if the truth could be known, that she afterwards married an officer, at least a high in commission as an Ensign.—But the letter. It is directed

"To Mr. Michael Brown
in Exeter.
These with care."

No proof is necessary to convince us it is genuine original letter. It carries with it intrinsic and irresistible evidence that it is what purports to be. Here it is.

"BEVERLY, March ye 21, 1777.

"Mr. Michael Brown,

"SIR—I once more take an opportunity to write you, to let you know I am well, through the goodness of God, and can live without your company—but pray don't get published the third time. I should be glad if you would come and get your clothes, for I don't want no conce with them—for I hope that you will take care not to promise any young lady more than you intend to perform; for I'd have you consider that God can see further than Exeter—although you thought you did me a great injury to go and leave me, I never thought so; for I'm well contented with your absence, and beg God to keep you there if you like it. So no more at present—but I remain a well-wisher to all the true hearts—and a curse to all false ones.

ELIZABETH MATTHEWS."

Nicholas Rowe, the poet, one day went pay his court to the lord treasurer Oxford, who asked him if he understood Spanish well? He answered "No;" but thinking that his lordship might intend to send him into Spain on some honorable commission, he presently added, "that he did not doubt but he could shortly be able both to understand and to speak it." The earl approving what he said, Rowe took his leave, and, retiring a few weeks to learn the language, waited on the earl to acquaint him with it. His lordship asking him "if he was sure he understood it thoroughly?" and Rowe affirming that he did, "how happy are you Mr. Rowe," said the earl, "that you can have the pleasure of reading and understanding the history of Don Quixote in the original."

An eminent Grocer Company in Dublin announce in the newspapers in that city, that they have whiskey for sale which was drank by his Majesty while in Ireland.

NEW ENGLAND FARMER.

Published every Saturday, by THOMAS W. SHEPARD, Rogers' Building, Congress Street, Boston; at \$2.50 per ann. in advance, or \$3.00 at the close of the year.

VOL. I.

BOSTON, SATURDAY, FEBRUARY 22. 1823.

No. 30.

DISEASES OF CATTLE.

SELECTED AND COMPILED FROM THE BEST AUTHORS,
BY THE EDITOR.

On the management of Cows, when they are near the time of calving.

"The diseases, which most commonly occur at this time, are strangury, or difficulty in voiding urine, and costiveness; and these it may be highly necessary to attend to, as they may, if neglected, be the cause of the cow slipping her calf. When strangury is accompanied with costiveness, which is generally the case, and is often the cause of the complaint, the bowels must be opened by a laxative composed of a pound of epsom salts dissolved in a quart of gruel, a clyster should also be given, consisting of two quarts of warm water, and four ounces of linseed oil. This may be repeated two or three times in the course of two hours, if found necessary. Should the strangury continue after the bowels are emptied, give the following drink:

Take of camphor	2 dr.
to be powdered and mixed with	
spirits of nitrous ether	$\frac{1}{2}$ oz.
Tincture of opium	$\frac{1}{2}$ oz.
Gruel in which one ounce of nitre	
has been dissolved	1 pt.
(Mix.)	

"Many cows have been lost by allowing them to be too fat at the time of calving; they are then said to die of the milk fever. It is advisable, therefore, when a cow, far gone with calf, is in too good condition, to reduce her by changing the pasture, which is preferable to bleeding or physic; but if she has approached too near her time to admit of this change having any effect, then bleeding will be proper. When a cow, in high condition, appears to be ill and feverish soon after calving, let her be bled to the extent of three quarts, and take a pint of castor oil. Should the fever continue, and particularly if it appears to increase, the animal expressing great uneasiness, with a wildness in her appearance, great redness of the upper eyelid, and quick motion of the flanks, the bleeding must be repeated. Many cows have been destroyed by the stimulating medicines that are commonly recommended and given."—*White's Treatise.*

Dr. Skellett recommends a similar treatment of the strangury in cows, and adds "The cow should have plenty of diluting liquors, such as warm water, gruel, &c. and mash made of bran, or pollard, with a little malt. In two or three hours after she has had the drink and clyster, it will be necessary to drive her gently about for a quarter of an hour, as it greatly assists the operation of the medicines.

"To prevent this disease, the animal ought to have air and exercise daily, and such food given her as is of a laxative nature, which will be of the greatest utility in her latter months of gestation."

Inflammation and swelling of the Udder.

This disease attacks cows about the time of calving, and is sometimes so considerable as to

cause an abscess to form. As soon as it is observed, let the animal be bled freely, and take a pound of epsom salts dissolved in a quart of gruel, to which a little castor or linseed oil may be added. The swollen udder should frequently be fomented with a decoction of mallows or elder. The best method of doing this, is to dip large woollen cloths in the hot decoction, and, after wringing them, let them be applied so as to cover the whole udder: this process should be continued for some time, and repeated several times a day. When, by these means, the inflammation has been removed, some degree of hard, but not painful swelling may remain; to disperse this, the following liniment may be rubbed on the part once or twice a day:—

LINIMENT.

Take of linseed oil	4 $\frac{1}{2}$ oz.
Spirits of turpentine	1 oz.
Liquor of ammonia	$\frac{1}{2}$ oz.

Inflammation of the udder sometimes occurs in consequence of catching cold, or a *chill*, as it is more commonly termed; in this case, the appetite is diminished, the cow stares, the breathing is quickened, and there is some degree of fever. Here bleeding is generally necessary at first, and the following warm laxative:—

Common salt	6 to 8 oz.
Oil or lard	6 oz.
Flour of mustard	1 oz.
Whey or water	1 qt.
(Mix.)	

The animal should be taken under cover, and fed with warm mash of bran or malt. One ounce of nitre may be put into her water, morning and evening.

This inflammation is generally confined to one or two quarters of the udder, but sometimes spreads over the whole. The milk drawn from the infected quarter is of a yellowish or whey color, and contains small flakes or curds. When the inflammation is not seasonably checked, it often proceeds to suppuration. If the matter be suffered to accumulate, a large abscess will form, and the gland, or quarter will be so disorganized as to be incapable ever after of forming milk. It is probable, however, that, when this happens, the other three quarters will have their capacity for forming milk gradually increased. Whenever matter has been formed in the udder, and can be distinctly felt, it is proper to open it in the lowest part, that the matter may flow off freely. When this has been done, the part should be kept clean, and no matter allowed to lodge in the cavity, which should be syringed with warm water. To get rid of the matter, it sometimes becomes necessary to make an opening in the teat, a little above its extremity, or the orifice. There is no occasion for cramming tents into the cavity, or daubing the udder with filthy ointments; it is quite sufficient to bathe and syringe with warm water twice or three times a day, which will prevent the accumulation of matter; and if the healing process goes on languidly, a mixture of spirit and water, or a solution of white vitriol may be injected.

Cows that are near calving should be attended to with reference to their complaint; and if it

is observed to be coming on, they should be bled, and milked. They should be kept in a bare pasture, or put into a cow house and be allowed but little hay, and a little of the liniment above mentioned, or some other emollient ointment made use of to soften the udder.

What by some is called the Swarled Bag, or Swelled Udder, requires no other treatment than rubbing the part with elder ointment, and as the complaint is merely temporary, from the extension of the milk vessels, and is, in fact, a proof of a good milker; it will soon yield to this application.

Wounds of Cattle.

"The wounds of cattle are most commonly caused by goring each other with their horns, or by breaking over fences; and, when deep or extensive, are generally followed with considerable inflammation. The treatment of these wounds, though represented by farriers as an intricate and mysterious branch of the art, is, in fact, extremely simple. When the wound is considerable, and some important parts have been injured, the irritating treatment commonly adopted by farriers, often destroys the animal; and, in slighter wounds, their stimulating applications rather tend to retard, than promote recovery. In deep and extensive wounds, affecting important parts, every method must be employed, as early as possible, to prevent a fatal inflammation from taking place. Bleeding is the first remedy; and immediately after, let a purgative or laxative drink be given, receipts for which may be found under the head, *Gripes*, and other diseases.* On no account should the wound be probed, or have any tents crammed into it, nor should any stimulating mixture be applied. The emollient fomentation [a decoction of mallows and elder] directed for swollen udder, is the only application that can be used with advantage, until the inflammation has subsided; the fomentation should be continued for a considerable term, and repeated frequently.

"When the inflammation occasioned by the wound, has been removed it will be proper to examine it with a probe, to ascertain whether any matter be confined or not; as in that case, it may be necessary to enlarge the original wound, to give it vent, or make an opening in another more depending situation, that it may run off freely. Some stimulating application may also be proper at this period, such as a solution of blue vitriol; or

Tincture of myrrh	2 oz.
Corrosive sublimate	12 gr.

"One part of oil of turpentine to two parts of sweet oil form a good digestive, as it is termed. And, if an ointment is preferred—

Take of hog's lard	8 oz.
Bees' wax	1 oz.
Common turpentine	6 oz.

"Melt them together; and, when taken from the fire, add one ounce of powdered verdigris; continue stirring the mixture until it is cold.

"With respect to sewing up a wound, as it is called, there are circumstances which sometimes

*See New England Farmer No. 26, page 201.

ORIGINAL COMMUNICATIONS.

The following letter to Mr. POMEROY, Vice President of the Massachusetts Agricultural Society, we are informed, was written by a gentleman who has had much experience as an Orchardist. It contains valuable information, and we are happy to give it a place in our columns.

Newton, Jan. 11, 1823.

render it highly improper; in deep wounds, for example, where the external opening is not very large, or in wounds, where the divided parts have receded from each other, and there is difficulty in bringing them together; in the former case, the matter would be confined; in the latter, much irritation would be caused by the stitches. In both cases, the inflammation would be considerably increased; but in superficial wounds, and where a flap of skin is separated, it will be proper to stitch it up; but on no account, should there be any stimulating fluid introduced, such as tincture of benzoin [friar's balsam] as Dr. Clater advises. It would be sufficient, should there be any dirt, or other matter, about the wound, to wash it off with warm water. Wounds of the belly, through which the bowels press out, are highly dangerous, and require the most delicate management. The first thing to be done, when this accident happens, is to put back the bowel into the belly as tenderly as possible; but if any dirt, hair, or other matter be observed on the intestine, it must be carefully washed off with warm water. When the bowel has been replaced, the wound must be stitched up, by means of a crooked needle and threads doubled, or small twine, well waxed (with bees wax); a bandage is then to be applied. The animal is to be kept at rest, on a spare, opening diet, of grass, or bran; and, if in any degree costive, a dose of castor oil may be given. The treatment of the wound is of little importance: the great object is to keep the bowel in its situation. It sometimes happens, that a great deal of air gets into the intestine, after it has escaped from the belly, and so distends it as to render it difficult, if not impracticable, to replace it through the original wound. When, after a careful, and patient trial, this is found to be the case, the wound is to be enlarged, so as to allow the bowel to be replaced.—This must be done cautiously, the knife being guarded by the forefinger.

"Bleeding from wounds seldom proves dangerous in cattle, and, if left to nature, generally stops in a short time; indeed it is the best plan not to meddle on these occasions: for, though the bleeding may appear formidable to persons not accustomed to such sights, it is really not dangerous; and unless some large vessel has been wounded, which would bid defiance both to styptics and to pressure, it may safely be left to nature. Should it be thought necessary, however, to stop the bleeding, the most effectual mode of doing it, next to that of tying the blood-vessel, is pressure, by putting bolsters of tow or sponge to the bleeding part, and supporting it firmly with bandage. During the progress of the wound towards healing, the new flesh often rises above the surface, or appears to be produced too luxuriantly, to check this, a little powdered blue vitriol, mixed with bole, may be sprinkled on the part."—*White's Treatise.*

(TO BE CONTINUED.)

"Dr. Black has calculated that it would take fourteen millions of films of gold, such as is on some gilt wire, to make up the thickness of one inch; whereas fourteen millions of leaves of common printing paper would occupy 3-4th of a mile in thickness. Vol. ii, page 654. The ductility of gold is such, that one ounce of it is sufficient to gild a silver wire more than 1300 miles long."

SIR—I have been much pleased with your valuable communications (in the Massachusetts Agricultural Repository & Journal) on the culture of flax, and on the improvement of our farms in New England. For each of these publications please to accept my thanks. I have also, with much pleasure, read Mr. Pickering's valuable communication on the best time for felling timber. I think he is substantially correct, with one exception in page 187, vol. 7, where he says, "*the larger the grain, the harder and stronger is the wood.*" From experience I certainly know that coarse grained wood, though heavy is brittle, and far from being the *strongest*. Ask any Wheelwright and you will be told that coarse grained wood is unfit for spokes or carts, and too brittle for pin wood. The strongest timber will always be found in a medium between the coarsest and the finest grained.—The information he has given of the durability of Mr. Cooper's fences, strikes me as of vast importance to the great body of American farmers. The facts stated by Mr. Cooper are undoubtedly correct; and there must have been an adequate cause why the timber felled in barking time was so evidently the most durable. No one can doubt but the vessels of trees are full of sap during the winter season. As the spring comes on, the sap becomes remarkably limpid, so that our sugar makers have found, in March, that by making a small incision in a tree they can soon draw off nearly all its juices. I apprehend that by the warmth of the sun, this limpid sap finds its way to the bark, where in the course of the season it forms the new circle of wood. It is worthy of notice, that, in our climate, there are but about three months in a year in which the bark may be stripped with ease, during which time nearly the whole growth of the trees takes place; and, I am strongly inclined to believe, but little if any sap remains in the heart part of the trees. To what other cause than the absence of the sap, can we fairly impute the extraordinary durability of Mr. Cooper's fences which were felled in the month of May?

Persuaded of the correctness of the foregoing ideas, in regard to the rapid flow of sap from the bodies of trees early in the spring, wherever any cutting or incision is made, I have for a number of years deferred pruning my trees till June. And I am satisfied that the only proper time for pruning is while the bark will peel—in June or July. I have made many experiments, and find where limbs have been taken off, either in autumn, winter, or early in the spring, it has invariably proved injurious to the trees—much of the sap has exuded, and rotteness ensued, and soon penetrated to the heart. I have no doubt but most of the decayed, hollow, and rotten apple-trees so commonly to be seen, were occasioned by unseasonable and improper pruning. I have also found that the stumps of the limbs amputated in June or July will be almost immediately encircled with a

ring of new wood, and in a short time, in proportion to the thriftiness of the tree, and size of the limbs, be completely healed over.

I well remember a fine thrifty orchard of apple-trees of grafted fruit, in the south of Newton, more than fifty years ago, so productive as to excite envy among the neighbors (for that base passion existed then.) Mr. Ward, the owner, always pruned this orchard pretty thoroughly in March, and I remember to have heard him say,—"it would ruin apple-trees to prune them in the summer." This fine orchard soon went to decay, and for more than twenty years past there has been scarcely the remnant of a tree to be seen on the ground.

I am, Sir, with due respect, yours,

J. KENRICK.

Samuel W. Pomeroy, Esq.

P. S.—Permit me in a few words further, to urge the importance of pruning only in barking time. The sap being then evidently near, and in actual contact with the bark, instantly flows to form the healing circle of wood, and there does not appear to be a drop wasted. When pruning is done at any other time of the year, *no new circle of wood will be formed around the stumps of the branches removed*, and for this plain reason,—that the sap is in the body of the tree and not on the outside. This being the case, wherever the wound is made, when the sap is, or becomes, limpid, it will flow out like blood from an animal body.

J. K.

TO THE EDITOR OF THE NEW ENGLAND FARMER.

SIR—As any thing relating to agriculture, however small, as to an individual, may be valuable in a public view, I send you for your paper (if you think it worthy) the following infallible cure for the diarrhoea, looseness, or scouring in calves. I call it infallible, because in thirty years use of it I have not known of its failing to effect a cure by *once giving*, but in *one* instance, and in *that* a *second* effected it. I think it much more convenient for farmers, than the medicine recommended in your paper, No. 27.

Put into a suitable bottle about half a pint good Cider, (not sweet nor bottled,) then open a vein in the Calf's neck and let into the bottle about the same quantity of blood; shake it quickly well together, and put it down the Calf's throat, before it has time to coagulate, which is easily done with the bottle.

I am, Sir, your's respectfully,

LOVETT PETERS.

Westboro', Worcester County, Feb. 7, 1823.

TO THE EDITOR OF THE NEW ENGLAND FARMER.

SIR—There is probably no part of New England where the land is better adapted to the production of Indian Corn than the valley of the Connecticut river, nor no part where its culture is better understood; hence it is that we see in the markets of New York and Boston the fattest beef from this section of country, it being the practice here during our long winters to feed the cattle with as much corn meal daily, as can be crowded into them, and to turn them off in the spring of the year, after having been fatted on this costly food from 100 to 150 days, at an expense, on an average, of thirty-five bushels of corn, and a ton and a half of hay to

a bullock of 1000 lbs. weight. The almost invariable result, for the last six or eight years, has been, either the loss of hay or corn, and sometimes of both—the cattle having been sold for only a little advance in the spring over the cost in the fall. Habits are stubborn things, and it is very like the same practice and the same result will follow for six or eight years to come, till at length the farmers of the valley must yield to the superior skill of those on the mountain towns, who raise the cattle, and who are latterly getting into the way of stall feeding them in the winter at much less expense, by substituting roots for corn during the first half of the time they are kept in the stalls; and although they may be obliged to buy some corn from the valley during the latter part of the time, yet on the whole, they get their cattle well fattened in the most economical way. They have, therefore, no inducement to sell their grass fed cattle in the fall of the year at a less price than heretofore, and the consequences will be that the farmers of the valley must either adopt their mode of feeding, or put up with a loss for years to come as they have done for years past. But why do they persist in feeding with corn during the whole of our long winters when they can raise a thousand bushels of turnips on an acre of land? I answer—It is the force of habit—and so long as they will neglect to raise any kind of roots, either turnips, beets, carrots or potatoes to eke out their corn cribs, so long will they make a losing business of fattening cattle. I have had it on my mind, Mr. Editor, to write an article for your useful paper on this subject before now. It has, however, been put off, and I doubt whether I should have wrote at all, if a fact to corroborate the foregoing statement had not recently come under my own observation.

Capt. Billings, of Chesterfield, (one of the mountain towns) sold a pair of cattle the other day to Mr. Theodore Clap, of this town, which had been fattened wholly upon turnips and potatoes. They ought to have been fed two months longer with as much corn meal as they could have eaten, but they were in fine order, and Mr. Clap was induced to drive them to Boston. I took their weight at the hay scales when they started—the largest ox weighed 1967 lbs. and if 56 lbs. are deducted for loss in driving to Boston, the real weight there would have been only 1911 lbs. alive—the quarters, hide, and rough tallow weighed 1593 lbs. of which the latter was 236 lbs.—the offal therefore was but a sixth part. This ox handled well and had a thin neck, but on the whole he was rather a coarse creature, with high bones and loose joints. His mate was what the feeders call a *fine ox*, and weighed here, alive, 1533 lbs. and one third less in Boston when dressed. A grass fed ox of this description will fetch about 10 per cent. more on the hundred for the stalls, than one of coarse make, but it seems in this case, the fine smooth ox had one pound in three of offal and the coarse ox only one pound in six.—If this fact will hold good as a general rule, it is time for the feeders of cattle to make as great a change in their habits of buying as of feeding them.

The object of this communication, Mr. Editor, is to urge it upon farmers to test things by actual experiments, and not to take for granted what they do is best, because it has been prac-

tised from time immemorial. With that view I would recommend the Agricultural Societies to give the following premiums, viz:

1st. — dolls. to the person who shall prove by actual experiment, the cheapest and best way of fattening cattle in the winter, one yoke to be fed with corn meal alone, and another yoke with corn meal only half the time, and with roots the other half.

2d. — dolls. to the person who shall prove in like manner, the most profitable cattle to put into the stalls—one yoke to be high boned, long legged, smart working cattle; and one yoke to be fine, short legged, small boned, smooth cattle, and in all cases to be weighed when first put into the stalls, and at least once a month while fattening. Your friend, T.

Northampton, Feb. 1823.

From the Massachusetts Agricultural Repository.

ON GRASSES.

To the Recording Secretary.

DEAR SIR—At your suggestion, that there might be some utility in publishing the result of some experiments made the past season upon the evaporation of certain Grasses, &c. in the process of drying or making for safe and useful preservation; I herein inclose the same to you for such disposition as you may think proper.

The great object of research seems to be, what is that admirable process of nature, (as yet too little understood,) by which vegetable life is sustained and promoted? And how can this be traced or pursued so as to allow to human skill and ingenuity the nearest approach to the wonderful perfection of the great design? That this may be usefully done—that it is indeed partly accomplished, and that we are in full progression to this effect, cannot be doubted. The discoveries and improvements in those sciences, particularly in Europe, which have a reference to the theory of agriculture, have of late shed such a light upon the subject, and these have been so followed up by practice and confirmed by experience, that the result is indeed most auspicious, and marks the present age as an era of improvement.

But the process of nature is indeed subtle and mysterious, and can only be unfolded to the most earnest and diligent inquirer.

An accurate knowledge of the elements which compose vegetable life, and different degrees in which they prevail in its formation, cannot be useless, in looking back for its origin and first principles. The tendency of most modern discoveries in relation to vegetation has been to shew the great prevalence of water in its composition. This has not only been made to appear by the analysis of plants, but it has to the astonishment of those who prosecuted these researches, appeared, that an acre of ground gave, according to its humidity, from 2 to 4000 gallons of water to the atmosphere in a day by evaporation only. The operation of this element has appeared so extensive that it has led to the most delicate experiments, and induced some even to suppose it the sole source of vegetation.

A curious instance has been frequently published, of a willow inserted in a leaden vessel with a given quantity of earth, and supplied constantly with water; the willow thrived and acquired great growth and weight in a few

years;—whilst on a subsequent examination of the soil, it appeared no sensible diminution had taken place.

It is observed by an ingenious writer,* to whom agricultural science is much indebted, "That although the mode in which manures operate on soils is not so obvious to the senses as to be fully understood, there are three ways in which water promotes their improvement. It preserves a favorable degree of temperature; feeds by conveying nourishing substances; and so as a pure element, it is beneficial." To prove that water enters largely into the composition of vegetables, and is thus advantageous, the same writer observes:—"That plants cut green, and afterwards dried, lose by exsiccation 66 to 70 parts out of 100."

The loss of weight by drying will be found in this country to vary very essentially from what takes place in Scotland, especially as it respects different plants. But our hay is of necessity made lighter by the heat of our summer, as well as for the purpose of its being stowed in large bodies and tight barns.

It should be premised, that the time of cutting the several grasses, &c. in the following statement was the same as is usually practised by husbandmen in our State.

Of 100 lbs. of vegetables cured in 1822, the product was as follows, viz.

100 lbs. of Green white clover,	gave of hay	17 1-2 lbs.
100 " of Red do.	gave	27 1-2 "
100 " of Herds' Grass,	gave	40 "
100 " of Fresh Meadow,	gave	38 "
100 " of Salt Grass,	gave	39 "
100 " of Mixed, 2d crop on Eng. Rowan,		18 3-4 "
100 " of Corn Stalks, gave		25 "
100 " of do. cut in milk with the ear,		25 "

It is to be observed, that the weight will vary from ripeness, and many other causes, such as wetness of season, shade, thickness of growth, &c. I am, Sir, with respect, yours,

JOHN WELLES.

Dorchester, Oct. 1822.

* Sir John Sinclair.

To prevent polished Hardware and Cutlery from taking Rust.

Case-knives, snuffers, watch-chains, and other small articles made of steel, may be preserved from rust, by being carefully wiped after use, and then wrapped in coarse brown paper, the virtue of which is such, that all hardware goods from Sheffield, Birmingham, &c. are always wrapped in the same.

To clear Iron from Rust.

Pound some glass to fine powder, and having nailed some strong linen or woollen cloth upon a board, lay upon it a strong coat of gum water, and sift thereon some of your powdered glass, and let it dry; repeat this operation three times, and when the last covering of powdered glass is dry, you may easily rub off the rust from iron utensils, with the cloth thus prepared.

Some profane people would say, it was a reflection upon creation, that of all living things, only two could be named which would remain true to us while in a state of poverty, viz: a dog, and a constable—as the former is never known to desert a human being even in the lowest state of degradation and misery, so the latter with equal pertinacity sticks to a man in adversity.—Metropolitan.

AN ADDRESS

Read on October 9th, 1822, at *Hallowell*, before the Agricultural Society of Maine, on the day of its Annual Meeting, and after the Agricultural Exhibition of the year had taken place:—by WILLIAM LADD, Esq. of *Minot*.

When we look around on mankind, and contemplate on the great variety of occupations in which they are busily engaged, in their eager search after happiness; we naturally inquire, which, of all these various pursuits, is best adapted to obtain the desired end? And when we consider man as a social being, our inquiry will not end in his individual happiness; but will be extended to the society, the nation, and finally to the whole race, of which he is a member.

If we trace back the history of almost any nation, we shall find it originating in the savage or hunter state, in which man wages continual war with savage beasts, and men more savage still; and lives in a state of perpetual alarm or aggression, without any regular means of support; sometimes gorged with his prey, but more frequently pinched with hunger; without natural affection; and destroying his aged parents and helpless infants when they become burthensome to him.

In the first stage towards civilization, we find families and tribes of wandering shepherds, without any fixed habitation or bounds of landed property; without any law but force; among whom bread is a luxury, and wine unknown; who are ignorant of almost all the arts and sciences; and strangers to most of those enjoyments which make life desirable.

Let the visionary sophist who delights to wage war against common sense; let the fantastic poet whose food is fiction, eulogize the hunter and the shepherd state, as the gold and silver ages of the world: Though we may be amused with the ingenuity of arguments which do not convince us, and pleased with brilliant, but false coloring, which does not deceive us; and though we do not feel uneasy at encomiums on characters which we do not envy, yet the generality of mankind allow, that we are never happy until the "bounds of our habitation" are established by known laws, and we return to the employment of our first parents in Paradise.

We have not time to compare the pursuit of agriculture with those occupations, which necessity or ambition induce others to embrace: but to prove its superiority, we refer to the practice of the most enlightened nations, in which we find a great majority of the people actually engaged in husbandry; and those who have been prevented by necessity, real or imaginary, fly to it as soon as they have obtained a competency; and if it be not so generally the case with the ambitious, it is because ambition is more insatiable than avarice.

What occupation is so healthy, so innocent, so delightful, so truly honorable, so independent on man, so dependant on God?—What so productive of national wealth, population, military strength, general knowledge, equal fortunes, steady habits, and all the essentials of republican government? If it is not so productive of individual wealth it is because it has so many other attractions which induce many to enter on it, who are willing to give up a greater profit, for the sake of more valuable considerations:

and because the happy circumstances of this section of our country, (where the hardy yeoman tills his own soil with his own hands, and where slave and peasant are equally unknown,) do not permit any great extension of agricultural capital. Nevertheless, as far as my own experience goes, I am bold to assert, that investments in agriculture have of late years been more productive, than capital employed in commerce; and it is to be doubted, whether manufactories have been more profitable.—How thankful then ought we to be, that the great Disposer of events has suited the occupation of the bulk of mankind so kindly to their natures! What reason have we not to exclaim, like the Mantuan bard, *O happy farmers, did we but know our happiness!*

But agriculture is a science to be studied, and husbandry is an art to be learned. As well may we expect to be able merchants, or expert mariners, without diligent application to the necessary studies, as to be successful farmers, while we wholly neglect the theory and but negligently attend to the practice of Agriculture. Our mistakes are not so immediately obvious, as those of the merchant and shipmaster; for happily we may sleep away the night, reckless of protested bills or latent rocks; but the effect of our errors is no less certain in the end. View the snug and comfortable mansion, surrounded by well filled barns and durable fences; the abode of plenty, peace, and happiness; and contrast it with that slab covered hovel, where old hats and rags outnumber the panes of shingles and broken glass; the abode of want, discord, and misery; surrounded by fenceless fields, and a doorless barn. The masters of both these tenements, came together into this State; each with an axe on his shoulder, but not a cent in his pocket; equal in health and bodily strength and laborious habits, and in advantages of soil; but unequal in discernment and knowledge.—The one has already paid for his farm, and settled many of his children; while the other owes twice as much as when he felled the first tree; and is in a manner the servant of his richer neighbor, for "knowledge is power."

Nor is the advantage of agricultural knowledge more obvious in individuals, than in nations. Look at the land of our forefathers, whose princes and nobles have delighted in the cultivation of the soil; and whose late monarch was one of the most able and successful farmers in his kingdom. Contemplate their Board of Agriculture, their Agricultural Societies, their Agricultural Surveys, their periodical Agricultural Publications, their expeditions to every quarter of the globe in search after unknown or untried plants. See their philosophers aiding and emulating their statesmen, and adapting chemistry and other sciences to the purposes of rural economy. Think of their exploring the bowels of the earth for minerals, to add verdure to the surface—of their draining morasses and irrigating hills—now boring their drains, like moles under ground—and then heaping the top soil into ridges and beds—and not only cleansing their cities to fatten their fields—but, for manure, importing from the continent whole cargoes of bones, many of them doubtless human—so that perhaps ere long, the myriads that fell at Waterloo, may sprout up like the army of Cadmus, on British fields, and give bread to their conquerors.

Nor has the result been unequal to the pains but has exceeded the most sanguine expectations. The progress of England in agricultural knowledge has been so rapid, that the productions of the soil are more than quadruple what they were under the boasted reign of Elizabeth—and very far exceed the produce of her gigantic commerce, her innumerable manufactures, her fathomless mines, and her productive fisheries, all added together.*

Now for a contrast: turn your eyes to a sister kingdom, a neighboring island, blessed with as good a soil and climate. But the proprietors of the land have neglected its cultivation, while they have been rioting on luxuries abroad.—Her peasantry have been uninstructed and undirected; each one tilling a few acres of ground, instead of many laboring under the direction of one intelligent man, as in England.—I spare you the disgusting detail of the consequences; but you cannot be ignorant of the fact, that thousands of Irish peasants have this very last summer died of absolute starvation; while the granaries of the English farmers have been overflowing, so that they have not had "where to bestow their goods;" and this, without any very unusual failure in one country, or abundance in the other. I grant that much of this distress is owing to political oppression; but it is more owing to the low state of agricultural knowledge, and the neglect of rural economy.

Yet, Gentlemen, do not think, that, though the *English farmer* pays a rent greater than the average fee simple of our farms, and a burthensome tax, and oppressive tithes, and higher wages of labor, than any other farmers in Europe, and yet often acquires a princely fortune; that therefore I would hold up his practice, as an example for us blindly to follow. By no means. The circumstances of the two countries being very different, the practice must be as different. Though from him we may learn the great utility of agricultural knowledge, and the general theory of husbandry: Our practice must conform to our circumstances; and it is in very few instances of detail, that we can successfully imitate his. Circumscribed by the ocean, and abounding in population, the rent of their land is necessarily high; and when compared with ours, the wages of their labor is proportionably low: while we are bounded by endless forests and possess extensive tracts of the finest soil the world can boast of; our population is thin, our labor high, and our land cheap; the crop often costing more than the field it grows on, and worth double its value. It is obvious therefore, that in England, the cost and consequent price of an agricultural commodity, must chiefly depend on the rent of land; as more is paid for rent than for labor. But in this country the cost must chiefly depend on the price of labor; as more is paid for labor than rent; rent, labor, and profit of stock, making in all countries the whole cost of an article. For these reasons, articles which require much labor, are cheaper in England than here; and practices which are

* Notwithstanding the destructive wars in which Great Britain has lately been engaged, her population has increased in 20 years, (viz. from 1800 to 1820) not less than three and a half millions. Horses and other useful animals have also so much increased, that some individual carriers now own more horses, than Queen Elizabeth could muster, when in danger of invasion from the Spanish armada. This amazing increase can only be attributed to improvements in agriculture.

beneficial there, are unprofitable here; their object being to save rent, ours to save labor. It does not so much concern us to know how much we can get from an acre, where land is so cheap, as how much we can get for a day's work where labor is so dear. The farmer has much more need than the merchant, to keep a profit and loss account, in all his transactions; and it is chiefly for want of it that many young and theoretic farmers find agriculture unprofitable, and many of the old and experienced never abandon the habits of their ancestors, however injurious.—But no wise man will implicitly adopt the opinion of another, if he can readily test its truth by his own experience.

Though the great principles of agriculture must remain immutable, so long as God shall please to uphold the present order of nature; yet it must be obvious, that our local situation renders the practical knowledge of others of but little use to us. It is necessary that we should make experiments for ourselves, and accurately ascertain those facts, which suit our particular situation.—We should ascertain, for instance, whether we have any natural manures which we can profitably apply to our lands; whether our lime be of a salutary or injurious quality; to what soil it is suitable, and to what prejudicial; in what quantities it should be used;—whether we have marl or other like substances; what soils are most in want of plaister, sand, gravel, clay, (raw or burnt,) swamp muck, eat-ashes, &c.: whether compost or raw manures be in the end most profitable; in what circumstances surface and under ground draining and irrigation, will pay the expense; whether woad, madder, and other dying drugs, as well as new roots, grains and grasses, will pay the expense of cultivation; which breed of horned cattle are most inclined to fat, which milk, and which is best for labor.

We want to know the comparative merit of the different breeds of horses, sheep, and hogs; the comparative value of succulent roots, rains, grasses, and esculent vegetables; and in thousand other things. Now though we may get much light on these subjects from foreign publications, yet we ought to know them from our own actual experiments: for though the great Sir Humphrey Davy, and the French chemists, have ably analyzed most of the subjects of the mineral and vegetable kingdoms; yet it sometimes happens, that from some unknown cause, actual experiments in agriculture, do not exactly agree with the chemical theory, and therefore experience must be the only true guide. This experience we want; and this is the object of our society.

But how shall this great and important object be obtained? Shall we trust it to the unconnected exertions of insulated individuals? True, there have been many who have given to the subject, a great part of their time and talents, and are worthy the respect and homage of mankind; for the man who adds to our productions one new plant; to our manures one new article; who corrects one error, or invents one machine, by which the labor now performed by rational beings may be transferred to the brute creation and the elements; offers a greater benefit on his race, than all the conquerors who have manured the world with blood, from Nimrod to Napoleon. When they shall cease to honor their destroyers, and shall be grateful to their benefactors, the name

of many a rural Socrates shall be rescued from obscurity; while the name of those scourges of mankind, shall rot in oblivion, or only be remembered to be execrated.

"Oh! spring to light, auspicious day,"

when the instruments of war shall be converted into the implements of husbandry, and mankind shall form one great agricultural society. But the joyful anticipation of that glorious period, which certainly and perhaps soon will arrive, has hurried me from my subject.—I ask again; shall we trust the interests of agriculture and its improvement, to individual exertion? Let us remember that though the duration of man's life, may be sufficient for the conquest of the world, it is not long enough for the acquisition of the art of husbandry: and in our present situation we have hardly any means whereby the experience of one may benefit another or descend to posterity. Now, when a man dies, his knowledge and experience die with him; and all he leaves as a memorial, is his example in a narrow circle, and his well cultivated farm; which in one or two generations degenerates to the common level. Search now, and see, if you can find, the farm of Cincinnatus, or of Cato the censor. Alas! the same tide of war has overwhelmed and swept away, as "with the besom of destruction," both the Cottage of Virgil and the Villa of Cicero. In vain do we expect great improvement to be derived from the labors of solitary individuals; but were we as desirous of imitating the example of Frederic of Prussia, in his exertions to promote the agricultural interests of his kingdom, as we are to admire his military fame; it would be to our advantage. He deserves to be called *Great*, not because he wasted the fields of other kingdoms, but because he improved his own; not because he improved military tactics, but because he founded a professorship of rural economy at his university of Halle. We have indeed a grand national academy in which our youth are instructed in the art of making widows and orphans; but we have no academy where they may learn to make their country great and happy by the successful cultivation of the soil. Could it be, that each of our states would endow a professorship of agriculture and the useful arts, in one of their Colleges, with a farm carried on at the public expense and for the public benefit; it would be perhaps the best way to acquire and disseminate this agricultural knowledge. Some of our universities have already a botanic garden; may we not hope, that, in time, they may enlarge their sphere.

The next best, and indeed the only other feasible plan, for the improvement of agricultural knowledge, is the establishment of *Agricultural Societies*. What is impossible for individuals, may be practicable by associations. The immense benefit they have been to all countries where they have for any length of time been established, is too apparent to be dwelt on. The great improvement of England is chiefly owing to her societies. Hardly one of the United States is without one. The most enlightened of our citizens give them their support. Our farmers, generally circumscribed in their means, are not able to make expensive experiments, and are not much given to innovation; nor is it perfectly fair that one man should be at the whole expense, and the

whole community reap the benefit. It is therefore necessary, that some means should be used to stimulate our agriculturalists to make experiments; and to induce them by pecuniary and honorary rewards, to make known the results. For this purpose we have assembled this day, where we can view the most excellent of the productions of the soil, decide on their merits and rewards, and learn the manner in which they were produced; that returning home, we may practice the same, and make it known to our neighbors.

But some assert that many of the objects of the Society appear to them frivolous and unprofitable. So did to others the introduction of the potatoe, the turnip and the carrot, which have made so great a revolution in the agriculture of England.—So now perhaps appears, to some, the introduction of the ruta-baga, mangel-wurtzel, woad, madder, and merino sheep. But I answer, that if we succeed in but one object in a hundred, which we undertake, it may be worth to the commonwealth a hundred times all our expense and labor. We most of us remember when the cotton-plant was a stranger in the United States—now it produces one of our greatest articles of export. Rice was thrown on our shores by the wreck of a vessel from Africa, and first planted by the floods; and indigo, perhaps, was introduced in some way as precarious; and the time may come when the wool, grain and woad of Maine, may rival the cotton, rice and indigo of Georgia; and even the cultivation of the tea-plant in this, or some more southern State, may save our silver from being sent to the ends of the earth, for that article of luxury.

But our opponents object, that they do not see the effect of our exertions. Do they expect to reap the crop, as soon as the seed is sown? Changes in agriculture are not made in a day. It is but a few years that we have existed; and in that short time, much agricultural knowledge has been disseminated and turned to actual account. Our breeds of horses and other stock have been improved; new articles of agriculture have been introduced; and threshing machines have been invented, which bid fair to rival the cotton-gin in utility; and we hope soon to present a machine which will so assist the farmer in the preparation of hemp and flax, that we shall have no further need of importations of those articles from Russia.

True, we have not done as much as we wish, or expect to do;—but our means are scanty, while our object is great. We have been disappointed in the support and countenance we expected from the State government. For, since we have become independent of old Massachusetts, we seem to have thrown off the influence of her good example; and Maine alone, I believe, of all the Northern States, and perhaps of all the States in the Union, gives no support to Agricultural Societies. Commerce must have its navy, its ambassadors, and its consuls; manufactures, their protecting duties; and the military art its public school; while agriculture, the support of all others, is left to the encouragement of the State governments; and the government of our State neglects it. Do our legislators think that we know enough already; or that we are too stupid to learn; or that the soil of Maine is not worth cultivating? Or are we too poor to give any

support to Agricultural Societies? Give us but one hundredth part of the annual expenses of military parade, and we shall be satisfied. May we not hope, that future legislators may be more enlightened, and more careful of the best interests of their constituents?—But if otherwise, gentlemen, let us remember that the less is done for us, the more we must do for ourselves; and should we be without the assistance, or even thanks of that public, for whose benefit we are laboring; let us nevertheless increase our exertions, and reap the reward in our own bosoms.*

* The legislature of New York with its accustomed wisdom and liberality, has established a *Board of Agriculture*, which does by authority what the State Agricultural Society of Maine has attempted to do by voluntary exertions. This Board is authorised to expend on certain conditions \$10,175 annually in premiums, &c. \$1000 annually in seeds and other necessary expenses, and about \$1000 in publishing annually a volume of memoirs on agricultural subjects—in all \$12,175 annually; besides a sum of \$500 given for the foundation of an agricultural library. This is done in a state with about four times our population, while our State has refused a single dollar for aiding any agricultural purposes whatever. [See *Acts of the New-York legislature for 1819 and 1820, which are in force six years.*]

From the Boston Daily Advertiser.

AGRICULTURAL INTELLIGENCE.

Dr. T. W. Harris, of Milton, son of the Rev. Dr. Harris, of Dorchester, has turned his attention to the Caterpillar, which has been so destructive to the salt marshes in this vicinity for many years past, and has made a communication on that subject to the Massachusetts Society for promoting Agriculture, which was so satisfactory to them, as well on account of the importance of the subject, as the careful, and judicious, and accurate manner in which the investigation was conducted, that the Trustees voted to publish the essay, and to grant to Dr. Harris the Society's gold medal of the value of thirty dollars. We shall not attempt an analysis of his essay, as it will appear at large in the *Journal of the Society*, in June next. The first appearance of the perfect insect, the moth, Dr. Harris states to be from the 1st to the 20th of June; and the Caterpillars attain their greatest size about the 1st of August. The most important points of his communication to practical farmers, who have suffered so severely from this scourge, are the preventive remedies, which seemed to the Trustees so important, as to require an immediate notice, in order, that attempts might be made during the ensuing season, before the publication of their next number. The saving of one crop of salt hay would be of great importance to the country bordering on the ocean. I was therefore instructed to pay this just tribute to the zeal and industry of Dr. Harris, and to publish the following recommendations suggested by him for the destruction, (or at least with the hope of checking the ravages,) of this insect. Dr. Harris says,

"From observation, and experience, I would recommend the following plan, by which we may lessen the evils we suffer from this enemy.

"First to cut the grass early in July—and secondly to burn over the marshes in March.

"In defence of early mowing, it may be said, that it is the only way by which the crop may be saved from those meadows where the cater-

pillars have multiplied to an extent. The preceding history furnishes the data from which to calculate the best time for effecting this purpose.

"We have seen that the Caterpillar is hatched about the 20th of June, and that its ravages are continued seven weeks. If then the meadows, in our vicinity, are mowed about the 4th of July, the Caterpillars, being small and feeble, will be deprived of their means of nourishment, and being unable to wander far, will die before the crop is gathered in. By the process of making the hay most of the succulent juices are evaporated, and the hay becomes so dry and hard as to resist the efforts of these little devourers. Thus we see the black grass (the most valuable) by ripening early is rejected by them, and the crop is saved.

"By the practice of late mowing, where the Caterpillars prevail, the crop is diminished, immense numbers of Caterpillars and of Grasshoppers are left to be dispersed upon the uplands to multiply and increase the existing evil; or are brought in to perish in our barns and stacks, where they communicate a most unpleasant flavor to the hay, rendering it unpalatable to our cattle, and occasioning a waste of fodder. Many beneficial effects result from burning over our marshes in March. This has been long practised in New Brunswick, a British province, abounding in salt marshes, and is getting into use with us, to the manifest improvement of the crops. By it, "old fog" is consumed, which becomes more important from early mowing the preceding year. By this means also we destroy innumerable eggs of Caterpillars and Grasshoppers laid in the grass the last autumn, and which, if hatched, produce a great increase of our devouring enemies.

"The roots of the grass are not injured by burning the stubble; on the contrary, they are fertilized by the ashes."

Such are the simple, intelligible, and rational suggestions of Dr. Harris—so simple and so rational, and so easy of execution, that we should hope that many, if not all owners of salt marshes, so infested, will be induced to try them. They need not reject the suggestion, because it may be said to savour of *book farming*, nor need they fear the ridicule which is attempted to be thrown, by one of our brother farmers in the western counties, on "gentlemen farmers," of which he himself happens to be one of the newest recruits. Truth may come from scientific research. The improvements which have been made in other arts and other sciences, have been chiefly derived from these sources, and we hope Agriculture is not yet prepared to reject the aid of Science, nor to disdain the efforts which have been made by such men as Washington, Jefferson, Sinclair, Davy, and a thousand others, although they may have been facetiously called "gentlemen farmers." Per order

J. LOWELL, Corresponding
Sec'y Mass. Ag. Society.

From the Newburyport Herald of Tuesday.

The meeting of the Essex Agricultural Society took place at Hamilton yesterday according to appointment of the Trustees.—The meeting was very poorly attended from this part of the county; but one gentleman present has oblig-

ingly furnished us with an account of the proceedings of the Society.

The following gentlemen were chosen officers for the ensuing year, to wit:

PRESIDENT.

Hon. Timothy Pickering, Salem.

VICE PRESIDENTS.

John Heard, Ipswich, Ichabod Tucker, Salem,
Dr. Benj. Parker, Bradford, Joshua Carter, Newbury.

TREASURER.

Benjamin R. Nichols, Salem.

COR. & REC. SECRETARY.

John W. Proctor, Danvers.

TRUSTEES.

Isa Andrews, Ipswich; William Pierce, Gloucester; Hobart Clark, Andover; Paul Kent, Newbury; Dav Emery, do.; Aaron Perley, Boxford; Daniel Putnam, Danvers; Temple Cutler, Hamilton; Israel Foster, Manchester; Thomas Stephens, Beverly; Edmund Bartlett, Newburyport; John Adams, Andover; Daniel Adams, Newbury; James Gardner, Lynn; Elihu Chaplin, Newbury; Ephraim Wildes, Topsfield; Daniel Fuller, Middleton; Nathan Felton, Danvers; William Reed, Marblehead; Jesse Putnam, Danvers; Moses Newell, West Newbury; Benjamin W. Cummings, Salem; J. W. Duncan, Haverhill; Dav

It was resolved to amend the constitution that there shall be but one stated meeting annually, at which the officers of the society shall be chosen, and all other matters requiring the agency of the Society, shall be transacted and the stated meeting shall be in autumn, the time and place of the public Exhibition.

It was also voted on account of the state of the funds of the Society, to omit the next regular Exhibition.

According to this arrangement there will be a meeting of the Society in October next (the place to be appointed by the Trustees) for the transaction of business, choice of officers, &c. but no Exhibition.

THE FARMER.

BOSTON:—SATURDAY, FEB. 22, 1823.

COMPLETE FILES OF THE N. E. FARMER.

The Subscribers and Patrons of the New England Farmer are respectfully informed, that the Proprietor having reprinted a number of the first impressions of his paper, complete sets, from its commencement to August last, may now be had, by application at Farmer Office, Rogers' Buildings, Congress Street.

Those who may be disposed to subscribe, will find an advantage in taking the papers from the commencement. They are printed in a form convenient for binding into a book—are paged—and at the end of a year from the date of the first number, a title page and index will be furnished gratis to those who take the whole volume. Besides, many of the Essays are continued from one number to another, and may be read to greater advantage by having the whole complete.

If any of our subscribers have not received all the numbers, they will be so good as to forward information of those which are missing, and they shall be sent according to directions.

We hope that Mr. LAUD's Address, together with the valuable original communications which we have the honor this day to present to our readers, will render our paper acceptable without the usual quantity of editorial matter. We know that it is rather a grave cast, and not quite so amusing as a romance or jest book, or one of Mr. Mathews' comic exhibitions. But we are more solicitous to profit than to amuse our customers; and though we may now and then give

anecdote, or a merry article, to season our solid dishes, let the mass of our matter must of necessity be of that kind of fare which to many literary palates will be dry and insipid. Although it has been already hinted to us that a little more comic spice, attic salt, and other literary condiments is wanted to give our paper a relish among the gay, the polite, the airy, and the fashionable, we cannot sacrifice the substantial for the volatile, or get for a moment that utility is our main object, and that a recipe which may be of value in domestic economy is of more importance than an anecdote which will be read with a broad grin and forgotten.

There is a species of mental dissipation, which is scarcely less dangerous, because more insidious, than that which leads a man to the tavern, or even that which leads him to be dreaded, which allures him to solitary rapping. The kind of dissipation to which we allude prevents a person's being able to fix a moment's attention on any thing really worth attending to. The victim of this frailty wants nothing but light articles, pretty paragraphs, neatly turned, with most elegant phraseology, but—signifying nothing. Those persons who give way to this weakness, have not patience enough to read a whole column in a paper devoted to useful topics, or to trace truth through every tortuous train of reasoning. They are satisfied with what lies on the surface, and are therefore well denominated superficial characters. To ladies and gentlemen of this description, we beg leave to observe that the highest compliment they can bestow upon our paper, would be some expression of their disapprobation. We will all be pretty sure of the approval of the wise, if we are honored with the censure of the otherwise. We would not, however, be understood to be inimical to wit, anecdote, or innocent hilarity, properly introduced, and relating to proper subjects. But the literary taste which can be pleased with nothing but the wonderful or the ludicrous, tales of terror, or coruscations of wit, is as much depraved as the palate which can be satisfied with nothing but honey and spices.

TO CORRESPONDENTS.

We have been requested to republish certain articles, and furnish information upon various topics connected with agriculture in several of its branches. We will comply with these solicitations as far and as fast as possible. We hope in our next to give an article on the best mode of reclaiming land from the sea, draining salt marshes, &c. We shall soon republish some interesting articles on improving the breeds of cattle, from the American Farmer. Some other subjects, to which our attention has been turned by request, are not forgotten, but merely deferred for the sake of availing ourselves of time to consider, and means to investigate the topics we are requested to discuss.

FARMER SUMMARY OF NEWS.

CONGRESS.—Nothing of great moment appears to be going on at Washington in the halls of legislation. Mr. Mercer presented a resolution, authorizing and requesting the President to open negotiations with European powers for the abolition of the slave trade, and the denunciation as piracy by the civilized world. The New Tariff bill is yet on the legislative anvil, and whether it will assume any permanent and current shape this season is a matter of doubt.

FOREIGN.—Papers from Calcutta have been received by a late arrival at Salem, as late as the 9th of November. Many parts of India have suffered by storms and inundations. Whole villages have been destroyed, and three fourths of the city of Surat were overwhelmed with water; a great number of cattle, and about one thousand houses were swept entirely away. In the city of Boorhampoor, 2000 houses were destroyed, and a great number more damaged. The

river Nerbudd rose thirty feet above its ordinary level in thirty-six hours, and inundated a region of two hundred miles in extent—sweeping men, cattle, and the products of the earth to one common destruction.

Advices from Mexico as late as Dec. 28th, have been received at New York. By these we learn that the Emperor Iturbide having determined to capture the castle of St. Johns, had made some movements for that purpose; but his progress was arrested by the republican army, under Generals Lopez and Victoria, and several hundred of his men have deserted him and fled to the republican standard.

The great question of peace or war between France and Spain was not decided at the date of our last intelligence from Europe. The King of France, if not inclined to peace, seems, at least, not disposed to be in a hurry in his appeal to arms. The Duke of Montmorency, being vexed at the pacific or cautious policy of his Majesty, resigned his office of Minister, and his resignation appears to have been cordially accepted. A note, however, has been sent to the French Minister at Madrid, the Count De La Garde, directing him to inform the Spanish government that the government of France is "intimately united with its allies in the firm resolution to repel, by every means, revolutionary principles and movements," &c. The Russian Minister, M. Pozzo de Borgo, is said to have raised his voice for war, and to be very indignant because the French Manifesto is not more peremptory and warlike. Spain, however, does not appear to be intimidated, but is making every exertion to repel force by force.

Pirates continue their depredations on American commerce. Capt. Davis, commander of the ship Essex, from Gloucester, was chased and plundered by them. His vessel and cargo were condemned in a mock trial, as a good prize to the pirates. The brig Adeline, Capt. Kempton, of Boston, has been sent into Porto Rico by those plunderers, and condemned as their lawful prize.

A new steam vessel is said to be preparing on the Thames, and is intended for Calcutta. Her engine and boiler occupy only one fifth of the usual space. The furnace consumes its own smoke; and will perform with one bushel, what formerly took one chaldron of coals; her boiler is so constructed as to return its own steam, without one particle escaping, so that when once filled, it is enough for the voyage, which it is calculated she will perform in 30 or 40 days. Our famous countryman PERKINS is the inventor.

DOMESTIC.—Commodore Porter's squadron against the pirates is said to be ready to commence its operations, and, says the Norfolk Herald, "it is devoutly to be wished that the sword drawn in this righteous cause may not be returned to its scabbard until the just mandate of the nation to 'exterminate the pirate throng' shall be fully executed."

A cotton and woollen manufactory at Meredith, N. H. owned by Mr. D. Avery, was burnt on the 12th inst.—Seven young women were in an upper story at the time, and being precluded other means of escape, six of them leaped from the windows, a distance of about 30 feet, and were all severely injured. The other was taken from a small window, by means of a ladder, almost suffocated. Loss estimated at from 25 to 30,000 dollars—of which only \$4000 were insured.

The Saratoga Sentinel states that the *Small Pox* is raging to an alarming degree at Stillwater (N. Y.) and is supposed to have reached some of the adjoining towns. A general inoculation of the kind pox, among those who are liable to receive the small pox, is said to be going forward.

The house of Mr. John Kaufman, in York, Pa. was lately entered by three robbers, who tied the man, and ransacked his premises for plunder, but found only about ten dollars, and a silver watch, with which they made off—without discovering 1000 dollars in specie, which Mr. K. the next day lodged in York bank.

A correspondent of the N. Y. Commercial Advertiser, at Washington, under date of February 9, writes, that Langdon Cheeves, Esq. and a gentleman from N. Carolina, had been nominated Commissioners, under the late convention to settle claims relative to slaves taken away by the British, at the close of the late war.

A splendid dinner was given to Commodore Porter, at Norfolk, a few days since. Captain Warington presided, assisted by captains Finch and Grayson, as Vice Presidents.

Stephen Girard, Esq. of Philad. has lent \$250,000 to the president and managers of the Schuylkill Navigation Company, for the purpose of completing certain contemplated improvements in the navigation on the river Schuylkill.

Three men, near Greensbush, Penn. being employed in boring the earth for salt water, a flame burst from the well and burnt them so badly that their lives were considered to be in danger.

A Moor, by the name of Garrow, lately died at Georgetown, Columbia, aged 135 years.

A number of cattle, swine, and one horse, have lately died, suddenly, on Long Island, supposed of Hydrophobia. A black girl has also been bitten.

A bull, two years old last April, raised by Darius Matthewson, Esq. of Pomfret, Conn. was slaughtered on the 28th ult. the weight of which, says a correspondent of the New London Advocate, was as follows:—Hind quarters 332—fore quarters 464—hide 123—tallow 48. Total 1022 lbs.

Canals.—A petition has been presented to the Legislature of Pennsylvania, by sundry inhabitants of the western part of that State, stating the practicability of connecting the waters of Lake Erie with that of Ohio river, by cutting a Canal of 4 miles from the creek Ashtabula to the Shenango, in Crawford county, and praying that a company may be incorporated with a capital of \$15,000, for the purpose of making said Canal.

PRICES OF COUNTRY PRODUCE, &c.

[Revised and corrected every Friday.]

		FROM	TO
		D. C.	D. C.
ASHES, pot, 1st qual.	ton.	145 00	148 00
" pearl do.		155 00	157 50
BEANS, white,	bush	90	1 00
BEEF, mess, 200 cwt.	bbl.	9 50	10 00
" No. 1.		8 50	9 00
" No. 2.		7 00	7 50
BUTTER, inspect. 1st qual. . .	lb.	14	15
" 2d qual.		12	13
" small kegs, family, . .		16	17
CHEESE, new milk		7	9
FLAX		8	9
FLAX SEED	bush	1 00	1 10
FLOUR, Baltimore, superfine, .	bbl.	7 25	7 50
" Genesee		7 50	
" Rye, best		4 25	4 50
GRAIN, Rye	bush	85	90
" Corn		72	75
" Barley		65	70
" Oats		45	48
HOGS' LARD, 1st sort	lb.	9	10
HOPS, No. 1,		11	13
LIME,	cask	1 25	1 50
OIL, Linseed, American . . .	gal.	65	70
PLASTER PARIS	ton.	3 00	3 50
PORK, Navy Mess	bbl.	12 00	12 50
" Bone Middlings		14 50	15 00
" Cargo, No. 1,		12 00	12 50
" Cargo, No. 2,		11 00	11 50
SEEDS, Herd's Grass	bush	2 25	2 50
" Clover	lb.	8	9
WOOL, Merino, full blood, washed		60	68
" do. do. unwashed . . .		55	58
" do. 3-4 washed		47	50
" do. 1-2 do.		44	46
" Native		37	40
" Pulled, Lamb's, 1st sort .		56	58
" do. Spinning, 1st sort .		47	50

PROVISION MARKET.

BEEF, best pieces	lb.	8	10
PORK, fresh		5	6
VEAL,		6	8
MUTTON,		3	7
PGULTRY,		7	9
BUTTER, keg & tub		16	17
" lump, best		20	23
EGGS,	doz.	23	25
MEAL, Rye,	bush	40	
" Indian,		80	85
POTATOES,		37	
CIDER, liquor,	bbl.	1 50	
HAY, best,	ton.	22 00	24 00

BY T. G. FESSENDEN.

"A merry heart doeth good like a medicine."

With mirth let us cherish our hearts,
 'Tis a precept by Solomon given,
 And cheerfulness surely imparts
 The temper best fitted for heaven.

Among all the numberless ways
 By which folly contrives to be wrong,
 There is none which more weakness displays
 Than wearing a visage too long.

Th' Omnipotent Donor designs
 That the gifts of His grace be enjoy'd;
 Hence, he that forever repines,
 Had better be better employ'd.

When first was created our race,
 This earth for man's mansion was given,
 And shall he find fault with the place
 To which he's allotted by heav'n?

'Tis a thing, I believe, understood,
 In which every sect is agreed,
 This earth was declar'd to be good,
 And so in the Bible we read.

Under Providence, tenants at will,
 A fine habitation we hold;
 For us to be murmuring still
 Is wicked, ungrateful and bold.

Yet well-meaning people I've seen,
 Who think true religion is shown
 By a sort of a woe-begone mein,
 And a whining, conventicle tone.

'Tis true, there's a season to mourn,
 As Solomon says—nevertheless
 Our griefs should be manfully borne,
 And 'tis folly to cherish distress.

A train of diseases await
 On a heart that forever is sad,
 And some, from a sorrowing state,
 Become irretrievably mad.

That religion can never be true,
 Which bows its disciples to earth,
 For he that has heav'n in his view,
 Has the best of all titles to mirth.

With mirth then we'll cherish our hearts,
 'Tis a mandate by Solomon given,
 For cheerfulness surely imparts
 The temper best fitted for heaven.

SELECTED FOR THE NEW ENGLAND FARMER.

A man of science can do greater things in his closet than a general at the head of an army, or a king with the physical force of a nation at his control.

Men of bustle are not men of business.—There is a kind of men who may be classed under the name of *bustlers*, whose *business* keeps them in constant motion, but whose motion *always eludes their business*. They never can stand still, because they are wanted in some other place, and are wanted in many places because they can stay in none.

There is an old maxim "Take care of the pence, and the pounds will take care of themselves." But there are some who save pence and throw away pounds. They will higggle with a luckster half an hour for half a cent, and yet squander away thousands of dollars in vain parade. Such men, and women too, are truly "penny wise and pound foolish."

Terrify and tease no person, not even your most intimate friends, by false reports, vexatious jokes, or any thing which can give them a moment's uneasiness. There are unpleasant realities enough in this world, without adding unnecessary and imaginary evils.

Pleasure is very seldom found where it is sought. Our brightest blazes of gladness are commonly kindled by unexpected sparks. The flowers that scatter the sweetest odours in the path of life, generally grow without culture, from seeds sown by chance.

Plato has very sagaciously observed, "that of all the shipwrecks in which the human understanding is liable on the sea of ratiocination, the most common is that of splitting on the rock of false comparison, or similitudes."

A noted tippler was asked if he would drink a gill of rum, mixed in any manner that might be prescribed? He agreed to swallow it. It was then mixed with a gallon of water, which he soon drunk for the sake of the spirit. We are frequently reminded of this, when we hear a man speak a long time to deliver an idea which might be conveyed in a few words.

February.—This is a cold short month of short days; yet it must not pass unimproved. Farmers should not be idle, though they can neither sow nor reap. Your horses, cattle, sheep and hogs, demand unwearied attention. Do not trust the boys to see wholly to them. Care should be taken that they are all fed and watered in proper season. Do not lie in bed too late and keep them from their morning meal; nor stay at the tavern or store till a late hour, and keep them from their evening allowance. Dry stables will save much hay. Now draw you a large woodpile, and thrash your grain before the vermin devour it. How go your schools? Parents should visit them often, and encourage their children; and in these long evenings hear them recite at home. Take up, too, some useful paper; or Rollin's, Mosheim's, or Milner's history.—*Christian Almanack.*

Important Improvement in Surgery.—The formidable operation of Lithotomy (or the extraction of *Urinary Calculi*) is now reduced to a degree of simplicity, almost incredible, by an invention of W. W. Sleights, Esq. M. R. C. S. L. and Lecturer in this City, on Anatomy, Physiology and Surgery. We omit mentioning particulars, except the following prominent features in it, viz. that the skin is not touched with a knife; that the *actual* operation does not occupy the eighth of a minute; and that it is attended with little if any more danger or pain, than *bleeding in the arm*. Thus an operation considered by the most celebrated men of the day, as fraught with the most eminent peril, and excruciating suffering, will be rendered as simple as *venesection*. We further learn, that the operation as *originally* conceived by him, was liable to many difficulties, all which have been effectually obviated by certain measures devised by him during the last twelve months consideration of the subject, and without it cannot be undertaken with safety. The Doctor, has as yet communicated these means to no one; but a treatise will

soon be published in London, to which City, we understand, he purposes, in the course of the next summer, proceeding.

We have seen a stone the doctor extracted on the 18th inst.; it weighs (independently numerous fragments,) *seven hundred and ninety eight grains*; and its circumference measured two opposite directions, five inches. The patient was well on the third day.

Montreal paper.

On the 12th of November, a farmer's wife of the name of Weischwall, at Wilkischken, Prussia, poisoned, with arsenic, her daughter, a girl of about 15 years of age, for fear she would make it known that her mother stole some geese. After the crime was discovered she confessed that, two years ago she despatched her father-in-law in the same manner, to inherit the property sooner; and, five months ago the husband of her eldest daughter, in order marry her to a richer man.

A certain great man, whose purse was somewhat better furnished than his noddle, employed some workmen to empty a fish pond—when one of them told him that he had found a *petrification*, [a piece of wood changed to the appearance of stone.] "Have you," said his wise employer, "then put it among the rest of the fish."

A Fat Story.—A certain man who was famous for the use of certain figures in rhetoric, called hyperboles, or by some *white lies*, said that he knew a Mr. such an one, who by idleness a high living, at length became so fat, and so heavy, that he would shake an upright two story house, by walking on the bottom of the cellar under it!

A certain farmer once complaining to a neighbor of his turnips, which had large tops but small roots, said that they were precise like the *infernal regions*. "Why so?" said his friend. Because, replied the farmer, they are *bottomless*.

Unfortunate Case.—A zealous Priest in the north of Ireland, missed a constant auditor from his congregation, in which schism had already made depredations. "What keeps our friend farmer B—, away from us?" was the anxious question proposed by our vigilant Minister to his assistant. "I have not seen him among us," continued he, "these three weeks: I hope it is not Protestantism that keeps him away."—"No," was the reply, "It is worse than that—" "Worse than Protestantism? God forbid, should be Deism." "No, worse than that."—"Worse than Deism! good heavens, I trust it is not Atheism!" "No, worse than Atheism!"—"Impossible, nothing can be worse than Atheism!" "Yes it is, your honor—It is *Rheumatism*."

A Quaker at Norwich (Eng.) having bought a horse which proved unsound, of a gentleman named Bacon, he wrote to inform him of it, but received no answer. Shortly after, meeting the seller at Norwich, he requested him to take back the horse, which the other positively refused to do. Finding his remonstrances of no avail, the Quaker calmly said, "Friend! thou hast doubtless heard of the devil entering the herd of swine, and I find he still sticks in the Bacon. Good morning to thee, friend."

NEW ENGLAND FARMER.

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No. 31.

ON EMBANKMENTS, DIKES, DRAINS, &c. FOR THE PURPOSE OF RECLAIMING LANDS FROM THE SEA, RIVERS, &c.

BY THE EDITOR.

Having been requested by some respectable correspondents to furnish such information as might be at our command, on the abovementioned subjects, we proceed to lay before our readers the result of our researches. We would premise, however, that we have no knowledge on this topic, derived from experience, and that books are the sources from which we have deduced nearly all which we shall venture to suggest.

The first object to be considered, before attempting to reclaim land, that at low water is left uncovered by the sea, is, whether or not the quality of the surface to be gained, is such as to be capable of profitable cultivation. In many cases, what is exposed at low water, and might easily be banked out, is an accumulation, to a great depth, of barren sand or gravel. But there are other places, where the sea, at low water, recedes so far, as to leave dry, large portions of surface, which is composed of a deposition of fine earth washed down from higher land.

Embanking, so as to exclude the sea, is more or less expensive, according to the nature of the materials of which the beach is composed. If the soil is of a sandy nature, it is generally necessary to face it with stone on the side next to the sea; otherwise the waves would soon make breaches in it. It is also necessary to give it a very considerable slope, and, as the foundation, to have the stones bedded, and laid in such a way that they may bind well together. The height of the embankment, should, in all cases, be at least two feet more than that of the highest tide.

When the materials of which the bank is formed are of a clayey or adhesive nature, strong turf may answer the purpose of facing the bank, and these should be well beaten and pinned down as soon as laid. The inside or land side slope should also be faced with turf.

If turf is to be used in covering the outside slope it must all be laid with the grass uppermost, and well beaten down with a flat sod-beetle, made for that purpose; and for their better security, it may be proper to drive a small stake of about 18 inches long, or more, through every sod. The sods for this purpose, should at first be carefully taken up, and traced by a line, all of the same breadth, and their edges cut as even as possible, that they may make the closer joints.

An American writer on this subject, (whose observations may be seen at length in the *American Farmer*, vol. ii, p. 131,) in treating of the difficulties which occur in reclaiming marsh lands, says that they arise "chiefly because of their exposure on the sea coast to severe gales of wind, and high spring tides. In a great measure to the spongy, light nature of the marsh land, it being in a degree composed of the roots of rushes and marsh grass. Likewise from want of attention in yearly repairing and raising the banks, which settle and contract very much as

the roots decay; the mud also, by drying, moulders into a fine dust and is blown away by every high wind. They who succeed best, have a sufficient space between the edge of the river or the creek and the bank, to save it as much as possible from being washed by the spring tides, or undermined by the encroachments of the river or creek. They form the bank by earth taken altogether from within it, and leave no ditch between the bank and the creek or river. They likewise leave a considerable margin between the bank and the ditch formed by digging out the earth, and cover the top of the bank with highland earth to mingle with the mud as it cracks by drying, and to prevent it from being washed and blown away." Probably the practice of covering the bank with turf, as above recommended, would secure it from being washed, or blown away, as effectually as any method which could be adopted.

When the sea encroaches on a low shore, it will be proper before attempting to execute any regular embankment, to make a careful survey of the coast, which is injured, in order to ascertain if there be any local circumstances, that can help to raise a natural barrier against the encroachment. In many places the sea is continually stirring up, and driving against the coast, quantities of sand and other materials, which either remain and serve to form hills or flats, or are carried back by the ebbing of the tide which brought them. In general, where the materials are of a solid nature, as shells, plants, or slime, they rest and accumulate, and raise the land above the danger of any encroachment from the sea. But where the shore consists entirely of sand, whatever quantities may be pushed forward at each tide, are immediately dispersed by the winds, and the shore remains open and exposed to every high swell of the sea. In such case, however, means may be adopted, for collecting and fixing the flying particles of sand; and it is certainly proper to prefer so economical an expedient to an expensive regular embankment.

Johnstone's chapter on Embankments, in the *General Report of Agriculture in Scotland*, vol. ii, p. 629, contains an account of a work of this kind, of which what follows is the substance.

The sea had for many years made encroachments on the estate of the Earl of Ashburnham, at Bembrey, in Scotland. It was the general opinion that a regular embankment must be formed, which would cost some thousand pounds, the Earl having several miles of coast. Mr. Tatlow, who first proposed the mode of embanking about to be related, observes, "the view that I first took, was upon a very windy day, and the shore, an entire sand, which extended at low water many miles. In riding along I perceived that any piece of wood, or accidental impediment to the course of the sand, raised a hill. It immediately occurred to me, that by making a hedge at the weak and low places, with wings to catch the sand as the wind blew it in different directions, I should obtain the desired effect. I therefore directed stakes nine feet long to be cut and driven one foot and a half into the sand, at two feet and a half dis-

tance from each other; betwixt which I had furze interwoven, so as to form a regular furze hedge, seven feet and a half high." This mode of embankment, it appears, proved successful. "Its present appearance," says the inventor after a trial of some months, "plainly evinces, that, at a trifling expense, I can secure Lord Ashburnham's estate from being inundated; for whenever the first hedge is not high enough to prevent the sea overflowing, another may be built upon the land formed by that hedge, and so on in succession till it is perfectly safe."

When the land is only overflowed during spring tides, there is time in the intervals, either to complete the embankment required, or to finish it in such a manner, that the flowing of the tide can do it no injury. But if the sea ebbs and flows every tide upon the land which is to be reclaimed, only small pieces of the work can be executed at a time, and the force of the water, at the flowing of each tide, is apt to destroy all that has been previously performed.

When only a part of the embankment can be executed before the return of flood tide, it is proper that what is done should be done in a complete manner. Thus, supposing a length of thirty or forty feet can be finished in one tide, it is better to raise it to its intended height, and to face the slope well with turf, than to commence a greater extent of bank and leave it in an unfinished state, exposed to the violence of the waves. It may be further remarked that, in low flooded lands, there are always several hollows, or water-runs, formed by the regress of the tide; and where the embankment has to be executed in different portions, it may be proper to build in the first place, across or over the spaces between these water-runs, so that the sea, having its usual channels of evacuation left open, will have the less tendency to injure the work. The spaces thus left may be filled up during the intervals between the spring tides.

A writer in the *American Farmer*, vol. ii, p. 131, gives a method of securing an unfinished embankment against being demolished by a current or tide which appears to us to be cheap, practicable, and is as follows. "A sufficiency of earth is collected, either by digging in the vicinity or by transporting it from the nearest high ground. A number of poles or stakes are then cut and brought to the bank, and at low water driven into the mud so as to form an angular pen in advance from each side of the gap. The poles are left thus driven in until the next low water, that they may adhere to the mud more firmly by suction: the earth is then thrown into the pen, and is protected by them from the friction of the tide until the next low water.—Other poles are then driven in advance of these on the same plan, and filled with earth, until the gap is gradually, but certainly closed."

The elevation and slope of the embankment should depend on the degree of exposure to the winds and tides, and the height to which the greatest tides are accustomed to rise. In every case, the bank should be at least two feet higher than the water during the greatest spring tides. In determining the slope, great care

must be taken to proportion it to the force of the sea, as nothing can be more ruinous, than to make the bank too bold or upright. A wave which falls on a flat surface dies without a struggle, while one that is stemmed by an abrupt rock strikes with tenfold force.

Along the back of all sea-banks, trenches should be made, and sluices erected at different parts to shut of themselves against any external water, and to open when the tide ebbs to let out any water from within.

These sluices should be so constructed as to let the water out of the marsh without admitting water from the sea. A method by which this may be accomplished is described by a writer in the *American Farmer*, vol. ii, p. 214, and is, in substance, as follows. It has been found that the common gates, heretofore used to exclude the tides from marshes, will not always answer. The tide creeps in so slowly, that it will not shut such a gate in time, nor press it too with sufficient firmness to exclude the flood tide; for chips, weeds, &c. were gently wafted into the gate way and lodged there, so as to prevent the gate from shutting quite close.—These tide gates were hung on hinges, either perpendicularly or horizontally, and it was found difficult to have them kept in such exact order as to exclude a slow tide. These, and other evils attending the old tide gates, are completely removed by the new invented *Tide Trunk*, which is perfectly firm, and closed merely by the act of the water's rising to a given point, without the least current whatever.

A Tide Trunk is a wooden oblong vessel, or square pipe, like a chest, open at the end next to the sea, river, or other water, which it is wished to shut out of the marsh, but closed at the end next to the marsh. At the closed end is a hole in the top. Beneath this hole, inside of the trunk, or chest, is placed a valve, consisting of light wood, which lies on the bottom, unless it is caused to float by the water flowing into the open end of the trunk, when it rises and shuts the hole at the top of the trunk. To the top of this valve is fixed a small iron rod, which rising perpendicularly, passes through a frame consisting of two upright pieces attached to the opposite sides of the trunk, and two cross pieces framed into the upright pieces in such a manner that holes may be bored in them thro' which the iron rod may slide up and down freely, and be kept in a perpendicular position, and thus keep the valve in its proper position, under the aperture of the trunk. The iron rod must be allowed to play with perfect ease thro' the frame, and be so light as not to prevent the valve from floating; and if there be any apprehension of its sinking the valve, the under surface of the valve may be coated with cork, to make it sufficiently buoyant to rise with the rod. There are other methods, which some prefer to keep the valve in its proper position, such as having perpendicular rods to pass thro' the top of the trunk in such a manner as to confine the valve to its place; or having slips of boards nailed perpendicularly on the inside of the trunk, in such manner as to give the motions of the valve the requisite direction. The upper surface of the valve must be smooth, and made to fit closely the under surface of the top of the trunk round the aperture or hole through which the water is admitted, as it drains from the marsh. The valve should be allowed to

move freely in the trunk, and yet be so large as entirely to close the aperture, in whatever way it may float up to it. Mr. Johnstone appears to entertain an opinion that a less complicated apparatus might answer the purpose of excluding the water of the tide from the trunk, and merely directs that the trunk have a proper flood-gate, or valve, fixed to the mouth of it, by hinges on the upper side.

As the water proposed to be drained off must flow over the top of the trunk, and descend into the aperture; and as it is important that the marsh should be drained as nearly down to low water mark as possible, the trunk, whatever may be its depth or width, should not be placed, with the interior surface of its top more than six inches above the ordinary low water mark; because there should be room for the water, pouring into the aperture from the marsh to clear itself over the valve. The height from low water mark to the top of the trunk, being so much deducted from the depth to which the marsh can be drained by the trunk; it should therefore, to pass the greatest quantity of water, be made broad in proportion to its depth, so as to allow of a large aperture, and to be placed as low as is compatible with its object and utility.

If one trunk should not be adequate to the necessary draining, two or more may be inserted—and as the tides are very irregular, it might be well to place one trunk lower down, on a level with uncommonly low tides, so as to take advantage of the greatest degree of draining, which such tides would afford. At the mouth of each trunk, it may be well to drive down stakes in such a manner as to prevent the entrance of leaves, chips, and other substances, which might impede the operation of the valve.

Mr. Johnstone in his tract upon embankments directs “to ascertain the exact height of the highest flood-tides, so that the embankment be raised at least two feet above what these may ever approach to. When this is done, the level must be taken, and stakes fixed to the proper height along the whole line to be embanked. Two frames of wood, of the exact form of the bank, should be made, and set up at the distance of twenty or thirty feet from each other, *exactly on the same level*, to guide and direct the height and dimensions of its construction, and the same level must be kept throughout the whole line. This is more requisite than in the case of rivers that have a descent in their current, and where the height of the water is regulated by the fall of the stream; for the surface of the sea water, being all on a level, the top of the embankment requires to be exactly parallel with the horizon, without a rise or declension in any part.”

As the pressure of the water upon an embankment against the tide, is different from that against the current of a river, it is not necessary to have it so straight, or of that uniform smoothness which is requisite where a running stream is to glide along the side of it. Where the embankment crosses any creeks or hollows, it will be necessary to increase the width of the base in proportion to the depth.

In forming the bank, the breadth, height, and strength must be made in proportion to the depth and weight of the water it may have to resist; taking into consideration the exposure to winds and the rapidity of the motion of the tide. As has been before observed, in substance, the more the slope towards the water approaches

to a degree of flatness, the greater will be the firmness and durability of the structure. In difficult cases, it is advisable, that the surface next the water should form an angle to a perpendicular line, of from forty to sixty degrees, according to the force to be opposed, and the nature of the materials of which the mound or bank is to be constructed. Where the foundation is firm and solid, the natural earth of the ground, where it is erected, may be employed, and will answer for the body of the bank, and for the inner surface, and where the pressure or force of the water is not very violent, the slope next to it may be formed of the same materials. But in cases where the force of the waves, by exposure to strong winds, operates more violently against the bank, the outer slope should be formed to the depth of two feet, with clay, or the strongest earth that can be conveniently got; and that, as well as the top, covered with well swarded turf. The inner slope, or that next the field or marsh to be reclaimed, should be sown with grass seeds.

Mr. Johnstone says that “The stuff for forming the bank, should be mostly taken from the side next the water, that as little of the surface within may be broken as possible; only by what is taken from the back cut or drain, that is necessary, along the embankment on that side.”—An American writer, however, advises in banking against a river or creek, to leave “a sufficient space between the edge of the river or creek, and bank,” and to “form the bank by earth taken altogether from within it.”* Mr. Johnstone, however, in advising to take the stuff to form the bank from the side next to the water is giving directions for embanking against the sea, and the American writer has reference to preventing the encroachment of water from a river or creek. We shall leave this question to be decided by professional engineers, observing, that all writers on this subject agree that the earth of which the embankment is composed, should not be dug out very near to it, but a considerable margin should be left between the excavation formed by digging out the earth, and the mound or embankment which is formed by such earth.

No stones should be left near the foot of the embankment; for the tide forming eddies round them, would soon make holes and break through the bank.

Embankments of the kind under consideration are liable to be destroyed by the waves, ascending the inclined plane next to the sea, and, when the tide ebbs, returning with force, and washing away materials with which the bank is composed. Covering the bank with turf, as before recommended may in many cases answer the purpose. As a further security, in situations of great exposure, the most effectual protection is to drive piles in front of the bank, to break the force of the waves. An English engineer, Mr. Beatson, says, “some years ago, when I was on duty as an engineer at a fort near Portsmouth, built on a point of land much exposed to the sea, the waves made such havoc, that the walls on that side were constantly giving away, although built in a most substantial manner, and having bulwarks of large heavy stones besides, to protect the foundation: however all would not do, these bulwarks were soon knocked to pieces, and several times the wall itself. At

* *American Farmer*, vol. ii, p. 131.

length, it was proposed, to drive a number of piles, about forty or fifty yards from the fort.—Those piles were twelve or fifteen inches in diameter, and driven about one diameter from each other, nearly in a straight line parallel to the wall where the waves did so much damage. They were driven into the ground with a pile engine, till perfectly firm: perhaps eight or nine feet deep, and about two feet of the top of them left above the level of high water mark.

"After this was done the walls received no farther injury, the space between the piles and the fort being always perfectly smooth, however tempestuous the waves might be without."

Where the force of the tide is not very great, by giving the face of the bank a great degree of slope, small stones, coarse gravel, or broken brick may be spread on the surface, about a foot thick, which if well beaten down will make a safe and durable fence. Brush wood also, spread on the surface of the bank, and well fastened down with hooked pegs, is found to answer the purpose well. The wood is liable to decay, and requires to be frequently renewed; but when it can be easily procured the expense is not great.

In consequence of the counteraction of the sea, all streams spread greatly at their mouths, and the earth they bring down is deposited there, and accumulates into shoals and inlets.—The soil which is thus formed, is invariably of the richest kind, and the recovery of it becomes of course an object of proportional advantage.

The most advisable and effectual plan for this purpose, when it can be executed at an adequate expense, is to alter the course of the river altogether, and make it discharge itself at some new point of the coast, where the land that would be occupied by its channel might be of less value, and its discharge less liable to be choked or shifted by the regorging action of the tide. When this has been done, it was found, that the old channel, in the course of a few years was filled up, and the sea quite excluded.

The practicability and economy of embanking and draining lands which are usually overflowed by tide water has been evinced by many successful experiments. Holland consists mostly of land reclaimed from the sea; and in England, many hundreds of thousands of acres have been acquired by means of embanking. There is no doubt but valuable tracts might in the same manner be reclaimed along the sea coast of Massachusetts and other maritime parts of the United States. In the Southern states draining and embanking have been successfully undertaken; and the Messrs. Swartwout's and their associates of New York, have distinguished themselves by a similar enterprize in the vicinity of that city. We shall give some account of this last mentioned undertaking, extracted from a Report of a Committee of the New Jersey Salt Marsh Company, published in the *American Farmer*, vol. ii, p. 154.

"In 1813 and 1814, the Messrs. Swartwouts purchased the Newark Meadows, and in 1815, commenced the work of their improvement.—They were then in a dreary, sunken and desolate situation, subject to the inundations of every tide from the river, and totally destitute of cultivation. Few or no attempts had been made in this section of the union, to reclaim salt-marshes of any extent. The most economical

and improved method of draining and embankment was not understood, and the price of labor much higher than at present.

"The former proprietors of these meadows, however, under every discouraging circumstance, calculated to defeat a great undertaking in its incipient stages, commenced their operations and succeeded, as far as individual enterprize and capital would permit. They embanked two thousand acres, making an embankment of five and a half miles in length, sixteen feet wide at the base, and five feet high. One thousand acres they ditched and drained, making a length of ditch of seventy miles and upwards.

"There remains to be embanked one thousand acres, and two thousand acres to be ditched and drained. The method of accomplishing this object is at once plain and simple. The tides must be excluded, and the land redeemed from its wetness. It will be necessary to raise an embankment, similar to that already described, and extend it about five miles, and to ditch that part which remains in a state which precludes cultivation. When this is effected, two thousand acres of most excellent soil will be ready for immediate cultivation, and the remaining thousand be in a similar state in two years. The whole of the remaining work could be executed in ninety days."*

The Committee then expatiate on the advantages to be derived from this improvement, from its location near the great and growing city of New York, the fertility of the soil to be reclaimed, &c. &c. and continue as follows:

"The embankment and draining of meadows will soon become an object of much consideration. So it has been with other countries. What was Holland but a sunken marsh, before the sea was shut out, and the lands drained? It is well known that some of her most fertile soil was once deeply covered by the ocean, and is now forty feet below its surface! Four hundred years ago, the British Parliament began to aid individual enterprise, in reclaiming meadows and marshes. The Bedford level, once a waste, contains 300,000 acres of reclaimed soil, and the Romney marsh 40,000 acres. Embankments in England have been erected to the height of 18 and 20 feet, and extended to the length of ten miles," &c. "In Denmark, the government have encouraged individuals and companies to embark in these substantial and profitable speculations, by large loans of money. In one year, upwards of one million of rix dollars were advanced for these purposes. Such has been the extent of unoccupied lands in the United States, and the ease with which the fee is obtained, that draining and embankment have not constituted an object of general interest. In the Southern States, however, some advances are made in this kind of industry. Draining and embankment have been successfully undertaken on the Cape Fear, Waggermaw, Santee, Ashley and Cooper, and Savannah rivers. As population clusters upon the sea board and upon the margins of our bays and rivers, we shall find a new channel opened to the industry and capital of our citizens, from which individual gain and general advantages will result." The Committee then state, in substance, that the capital

* This Report was presented in June, 1820. We are not able so say what measures have been pursued since that period for embanking and draining the marsh it refers to.

stock of the New Jersey Salt Marsh Company consists of three hundred thousand dollars, divided into shares of fifty dollars each; and go into calculations to show that "the dividend to be derived to the stockholders, according to the most reasonable computation, must be seven per cent. for the first fourteen years, and will probably ever after pay from 12 to 15 per cent. on the capital stock."

There is a mode of improving lands situated at or near the mouths of rivers, which deserves notice, although we cannot assert that it will be found eligible in the United States. There may, however, be situations, in which it can be adopted to advantage, and we shall therefore briefly advert to it. It is called "*Warping Land*." It is effected by conducting water, which holds earthy matters in suspension, washed down by rivers to their mouths, from the stream in which they flowed, over barren or marshy ground, that the earthy matters may subside, and add to the soil which is thus overflowed. The ground which it is wished to improve by this method is surrounded by bank-high enough to confine the water. The tide is then admitted, and detained till the sediment is deposited on the surface of the soil. The water must be at command, and there must be not only a canal cut to join the river or tide water, but a sluice, or sluices to open or shut as wanted. Tide trunks with some variation in their construction as respects their valves, from that heretofore described, may answer for these sluices. The effect is different from that of irrigation, for it is not produced by the water, but by the mud which it holds in suspension; and the object is not to manure, but to create a soil. This mode of making land has been practiced in Italy to great extent, and with corresponding advantage. For further directions relating to this important subject, we would refer our readers to *Rees' Cyclopaedia*, Art. *Embankment*; *Sir John Sinclair's Code of Agriculture*, p. 268, 272; *Gen. Report of Agriculture in Scotland*, vol. ii, p. 615; *Beaton's Essay on Embankments*; *Communications to the Board of Agriculture*, vol. ii, p. 211; *American Farmer*, vol. ii, p. 131, 143, 153.

New Jersey Canal.—Gen. Swift and Col. Renwick have reported to the Commissioners, at Morristown, that the plan of uniting the Delaware and Hudson by the Musconetcong and Passaic rivers may be accomplished without serious obstacles; that its completion would be attended with immense advantages to the Iron Works in New Jersey, and supply the city of N. York with coal from the mines on the Lehigh river, in Pennsylvania, at a low price. It would also furnish the citizens of East Jersey with a more ready conveyance of their agricultural products to the N. Y. market.

Flax-dressing machine.—J. M. Ely, Esq. of New-York, recently returned from a visit to Europe, examined Mr. Brindley's establishment in London. Mr. B. informed him that he had invented a machine for dressing flax which he will warrant to accomplish all that can be desired. He had not filed a specification of his machine, but he was confident it would supersede those now in use in England.

Receipt for Sausages.—For 10 lbs. of meat, take 4 ounces of salt, one ounce of pepper, and sage and other herbs to your taste.

AN ADDRESS

DELIVERED BEFORE THE ESSEX AGRICULTURAL SOCIETY, AT THE AGRICULTURAL EXHIBITION IN TOPSFIELD, OCT. 2, 1822, BY PETER EATON, D. D. OF BOXFORD.

It is evident from the constitution of man, it was the original design of Providence, he should derive his subsistence from the earth. Want soon impelled him to repair to this nourishing parent. Tilling the ground was an art not unknown to the first human family. Where man has existed in the most rude and savage state, the chase has been a favorite pursuit. This, however, affords a precarious and sometimes a scanty support. In proportion as civilization has spread, and a knowledge of the arts been cultivated, agriculture has claimed attention.—Its progress was slow and inconsiderable in the early ages. Every thing was to be originated. There were no hints by which to profit—no rude instrument on which to improve—nothing to aid and direct inventive genius. Hence, the instruments of husbandry were very imperfect; yet necessity, the parent of invention, led to the discovery of some of most essential use.

Sicily was the first state in which agriculture attained any considerable improvement. It was here, also, religious rites were first instituted in honor of Ceres, the goddess of husbandry.—From this country a knowledge of the art was carried into Greece and the northern parts of Europe. In the early ages of Rome, relaxation from the toils of war was frequently devoted to the cultivation of the soil. The high and the low, the patrician and the plebeian were united in the same employment. All distinctions of rank were lost in the field. Those of the first standing in society might be seen toiling with the peasant. Not only nations the most civilized, but even those the least cultivated and improved, have considered agriculture the most important of the arts of life, because it provides for the support of life. To do honor to the employment, and encourage the pursuit, Roman dictators followed the plough; and the emperor of China, with the grandees of his empire, make an annual appearance in the field, to sacrifice to their god, that he may be rendered propitious to the labors of the husbandman.—But it is not my purpose to trace the progress of the art. I would contemplate it as it now exists.

Gentlemen, I feel incompetent to the task assigned me, possessing neither that theoretical or practical knowledge necessary to furnish me for the occasion. As I have gleaned but sparingly from experience, and not had opportunity to consult the writings of those who have attended scientifically to the subject, you may expect only a few common-place remarks.

No country holds out greater allurements to agricultural pursuits than the United States. Nature has obviously designed this for a great farming nation. With a population spread over a vast extent of territory—blessed with a soil rich and fertile—the inhabitants distinguished for habits of industry and perseverance—the country intersected with rivers and canals, opening a free communication with the sea-coast, which skirts our whole border—our merchants surpassed by none for calculation and enterprise—with ports open to all nations—we have every possible encouragement to nourish and improve the arts of agriculture. It is the life of

our commerce, and commerce richly repays the industrious husbandman. Too often has there existed a spirit of jealousy and rivalry, between the commercial and agricultural interests. They are as intimately connected in this country as cause and effect. England is a commercial nation, but of produce she is often a purchaser. It is her manufactures that cherish her commerce. In America, it is the *farm* which gives activity to commerce, and commerce which makes the farmer rich. Though agriculture is of vital importance to the prosperity of our country, yet from its first settlement, till a recent period, this art has been left to itself, neglected and unencouraged, and been under the management of those who reflected nothing more on the subject, than just sufficient to perform the manual labor on the farm. Either from a want of ability or inclination, few have inquired, whether there was any defect in our system of husbandry, or whether it was susceptible of improvement. Hence the same annual routine of service has been performed on the farm—the son following the footsteps of the father, and continuing to cultivate the same field, because his father had done it before him.

We congratulate our country, that societies are forming in every section of the Union—that gentlemen of talents and acquirements are lending their aid to this neglected art, endeavoring to discover the defects of our system, and by experiments to ascertain the improvements of which it is susceptible. Much has already been done, an almost certain evidence more may be done, and sure pledge it will not be left undone.

So inconsiderable is the gain of husbandry, so laborious the employment, as to present little inducement to young men, of talents and knowledge, to engage in the pursuit. The enterprising youth looks around him for the lucrative employment, by which he may raise himself to affluence and ease. The only reward agriculture promises to the most persevering industry, is little more than a bare support. A further discouragement is, it has been considered a menial employment, less honorable than other occupations; and the sentiment has obtained, that nothing more is necessary to make a farmer, than a vigorous constitution and a robust body. Never was there a conclusion more erroneous. The inference that any man is qualified to manage a farm, is as absurd, as that any man is qualified to manage a ship at sea. It requires careful observation, sound judgment and a discerning mind. In every other art and trade, practice and experience are thought indispensable; and is no skill necessary in conducting the complicated concerns of a farm? The practical attention now paid to husbandry, the lively interest taken in the subject by gentlemen of honorable standing in society, have a tendency to raise the reputation of this too often despised profession.

In commendation of this employment, it may be observed, it is favorable to morals, health of body, and vigor of mind. It is friendly to morals, not presenting those temptations to deception and fraud, nor affording opportunities for imposition, nor inviting to the practice of that chicanery, to which some other employments hold out a lure. The time of the farmer is devoted to himself. He labors in the clear light of heaven; and if he cheat his

farm, he cheats himself. Besides, he is habitually conversant with objects, which cannot fail to conduct his mind to that Being, who superintends, directs and governs all.

This employment conduces to health of body. Some mechanic arts and manufacturing establishments are debilitating in their influence.—They produce a sickly body and enfeebled mind. The farmer breathes a pure, uncontaminated air; and if his day is toilsome, his rest is sweet. To no one class of men are we more indebted for our independence, than the hardy yeomanry of our country. From this class were selected some of your ablest generals and bravest soldiers; and on this class, more than any, rests our hope for its preservation.

Nor will it be said that husbandry is unfavorable to mental vigor. If we do not find, nor should we expect to find, those literary acquirements and general information which obtain among some classes in the community, yet where do we meet with sounder sense and judgment, and greater intellectual vigor, than among our industrious farmers?

The great principles of agriculture are the same in every country; and the plough, the hoe and the harrow are of essential use: yet, so various the climate and the soil, as in some respects to require a different process. One nation cannot adopt the precise system of another. Labor is of the first importance in conducting a farm. In old countries, with a dense population, where it is much cheaper than in America, undertakings may be justified, and attempts at improvement made, which might prove ruinous with us. The disproportion between the price of labor and produce, is a bar in the way of agricultural success. The large extent of our unsettled territory, blessed with a salubrious air and fertile soil, where a farm may be obtained for a trifle, renders it probable this disproportion will long continue. As one country cannot take another for a perfect model in agricultural pursuits; in our own, so different our climate and soil, that the South and the North cannot adopt the same process; and even in the state of Massachusetts, so various our local situations, that each section must adopt a system, in some respects peculiar to itself.

The society, which I now have the honor of addressing, while desirous of diffusing information and of encouraging the interests of agriculture in general; yet in its formation and in the progress of its measures, has had a primary regard to the advantage of the county of Essex. As every district in the Commonwealth has its advantages and disadvantages, the soil various, and that article may be cultivated in one, unsuited to another; it would be for the interest of husbandry in general, that societies should be as numerous as our districts. Even in the county in which we dwell, certain portions enjoy advantages denied to others. Farms located near populous towns, or the sea shore, can be furnished with manure, with greater facility than in the country. General principles in agriculture may be established and recommended, but specific rules are as various as the location of farms, which the judgment and discretion of the manager must search out and prescribe for himself.

The farms in this county (with exceptions not numerous) consist of from forty to an hundred and forty acres of land. In experiments and researches, is not special reference to be

ad to the interest of the farmer, and what can be accomplished by this class of the community? A gentleman, with a capital, may gratify his taste and curiosity in conducting his farm.—With him, it is immaterial, in his mode of cultivation, whether he is remunerated for his expense or not. Not so with the common farmer. In any particular method of manuring and cultivating recommended, the first inquiry is, what will be the clear gain, and shall I realize it at the end of the first or second year? It is to be remembered by our cultivators generally in Essex, that the farm is their dependence; nor can they adopt any system of husbandry which will not give them an immediate profit.

The gentleman of capital, whose farm is his amusement, may wait years for his reward.—The common farmer wants his pay down. Plans of improvement have been recommended, practicable indeed to the man of wealth, but wholly uninteresting to the mass of farmers in Essex, because beyond their ability. They can adopt no system, which the *farm itself* cannot support. It is a maxim in husbandry, that no scheme of management is of advantage to the community, which will not give a profit; and that is the best which will afford the greatest profit with the least labor and expense. In every pursuit, commerce, manufactures, the mechanic arts and agriculture, gain is the first object. Schemes of cultivation have been proposed, but visionary, because you would be left in debt. With great expense I may obtain great crops; but if not remunerated for the labor and expense, even my great crops will ruin me. The question is not simply, How a great crop may be obtained; there is a second question, Will this great crop pay for itself? It is no valuable improvement in husbandry, to increase your productions, if your expense is proportionably increased; because it leaves you no additional gain. If, with a certain portion of labor and expense, I can obtain forty bushels of corn from the acre, and the expense must be increased in proportion to the increase of crop to raise an hundred bushels, where is my profit? It is of importance, then, in every proposed improvement, that careful calculations should be made of the increased expense. The great desideratum is, to increase the productiveness of a farm, so that the expense may bear a less ratio to the increase.

The moderate size of our farms in this county renders it necessary, that husbandry be conducted on a limited scale. A small farm, however, well cultivated, is much more profitable than a large one, which is neglected. Many of our farmers have materially injured themselves, by endeavors to gratify an insatiable desire of possessing much land. Nothing gives them more pleasure than adding field to field. In justification, it is pleaded, their property vested in land is secure. This remark may be just; but you often sacrifice one half to secure the other. It is bad management, and a mistaken policy. Admitting you can purchase land without involving yourself in debt, and place it in a state of cultivation, the measure may be judicious. A more common practice is, to plunge into debt for the purchase, and to leave the land half cultivated. The consequence is, the interest of the money, taxes, and the expense of labor, eventually consume the purchase. How many of our farmers complain they are in

debt! and these debts have principally been contracted by purchasing land they cannot half cultivate.* In the country, rarely will you find a field which will pay the labor, the interest and the taxes. By purchasing, then, you impose a burden on yourself difficult to sustain. Many have been impoverished, and not a few have been ruined, by possessing themselves of land for which they could not pay. The intelligent farmer, before he plunges into debt, will not fail to attend to this plain question, Will the income of the intended purchase more than repay the interest, the labor and the taxes? If not you are better without the land. The possession of more land than can be improved is a tax upon the owner.

It has been said, nor can it be too often repeated, that manure is of the first importance on a farm. Notwithstanding the various ways of collecting it have been pointed out, its utility and necessity urged by scientific and practical men, little attention is paid to the subject by one half the farmers in the county. Nothing more is provided for their fields, than what is collected from their hovels in the winter, and the pens of their cows in the summer. He who does not attend to this branch of husbandry, is not deserving the name of a farmer. Every barn yard, after being emptied in the spring, should be immediately replenished, either with scrapings from the streets, earth which has been collected by wash, or the vegetable soil of low meadows. The latter is preferable for warm, dry land. Where cows are folded over the night, a most valuable composition may be prepared through the summer. It is known to every farmer, that turning it often with a plough or fork will greatly increase its value. Of manure, too much cannot be said. The subject cannot too frequently be brought into view, nor too pressingly urged. It gives you grass and your grain. Although there is little danger of applying too great a quantity to your land, it may be used to excess. Indian corn will bear a free dressing; but your crop of small grain may be injured by manuring too highly. It will either be choked by weeds, or fall down and perish before ripe. Even grass land may be manured to excess—causing your grass to fall before half grown; or, if it escape this calamity, is rank and coarse, and not relished by your cattle. On the rich bottom lands in the Western States, when first cleared, a succession of crops of Indian corn are taken off to reduce the land, before wheat is applied.

* This is often the effect of a pardonable pride—that liberty in which we glory—liberty for every man to dispose of his own property as he pleases, or, if he dies intestate, the law divides it equally among his heirs. In England, though the laws do not forbid a division of their large estates, the eldest son usually possesses the soil and titles of his ancestors; the younger branches of the family not participating in the landed property. In the United States, as the law makes an equal distribution of property among the heirs, one takes the farm by paying out legacies. Unwilling to dispose of the paternal inheritance, he commences life with a burden of debt; under the weight of which he is often crushed. The child who inherits the homestead, is usually envied. More frequently is his the harder lot. This law, which equalizes property in a family, is productive of one happy effect; it preserves an equality among our citizens, not known in England; and, so long as this law shall be in force, will forever preserve us from the evils of those wide extremes there experienced—overgrown wealth, and abject poverty.

Few articles are cultivated with greater profit and success in this country, than Indian corn. The valuable uses to which it may be applied, are well understood. Yet errors, undoubtedly, obtain in its cultivation. It is a general practice with good farmers, to give their corn three hoeings, without regard to different soils, or the state of their land. Whereas four hoeings are more necessary for some fields, than two for others. It is indispensable that the weeds be kept down, let it cost what labor it may. If three hoeings will not do it apply the fourth. Permit them to grow, not only do they injure your present crop, by taking the moisture and nourishment from your corn, but suffer them to seed, and a foundation is laid for a harvest of weeds the following year. Indian corn is usually succeeded by small grain: and how often have we observed it choked, and, before harvest, overtopped, by weeds sown the preceding year, through the neglect of the husbandman! In land naturally weedy, when sown with small grain, I have sometimes nearly lost my crop by its being overtopped, by weeds. The evil has been remedied, by increasing the quantity of seed. Upon the farm on which I was born and brought up, (my father was a husbandman) it was practised, in planting Indian corn on sward land, to put the summer manure into the hill: the winter manure was spread, and, as was termed, harrowed in, but not a fourth part was covered; the rest was lost by evaporation. This injudicious practice is still continued by many farmers. To our President we feel indebted for many valuable remarks on this subject.* If corn is hoed after it begins to top, the plough ought not to be used. It has been found at this advanced state of the corn, that fibres extend four and five feet, near the surface of the ground, in search of nourishment. These fibres are cut by the plough; the corn is deprived of much of its nourishment, and your crop is injured. If necessary to remove weeds, let the hoe be the instrument. It is believed to be of consequence, that attention be paid to the form of the hill. Some prefer a large bill, of a conical form, as it will preserve the stalks more erect; and by making a large hill, all the manure is brought into the vicinity, and the corn will more readily avail itself of the advantage. A flat hill, of a moderate size, is unquestionably preferable; the stalks are permitted to spread themselves—are not so easily broken by the wind—more readily admit the sun, the dew and showers. Nor is a large hill necessary, that the manure may be drawn up; the fibres, which wander so far in search of nourishment, will find it, if upon your land.

Summer wheat, though a most valuable grain, is not adapted to the county of Essex. In some of our western districts, it may be cultivated with success, while we have sustained from its cultivation very material loss, within the last thirty years. Not oftener than once in three or four years do you obtain a decent crop. In the intermediate years, your produce is small. Average your grain for four years, and you find the profits light. Still, the farmer lives in hope, and continues the cultivation of a grain which but indifferently rewards him for his labor. Whereas, barley and oats rarely fail

* See Hon. Mr. Pickering's Address to the Essex Agricultural Society, 1818, pages 2, 9.

you. It is owing to our proximity to the sea, that our wheat is oftener blasted than in more inland counties? And why is one field, with us, blighted like Pharaoh's corn, while another, but little removed, is rank and full? Enquiries into the cause are well worth the attention of the philosopher.

It is very desirable that our wet meadow-land, much of which is now almost useless, might be rendered productive. These lands we possess to a considerable extent. Is it impracticable to introduce the fowl-meadow grass? Has the experiment been sufficiently tried? Some meadow land has been improved by draining and carrying on earth. The late Col. Baldwin, a gentleman of a truly philosophic mind, gave me the following facts. Having occasion to build a barn, he formed the purpose of opening a cellar under it, for the reception of manure. The plot on which the barn was to be erected was a light sandy soil. In the vicinity was a boggy meadow, through which he cut wide ditches, with sides not perpendicular, but on the principle of the inclined plane, to prevent filling. In the winter, when frozen, the ground was covered with sand taken from the cellar, this again with the earth taken from the ditch. Clover and herds-grass seed were then sowed, which grew luxuriantly, rising to the height of three or four feet, giving him three tons to the acre. It may be questioned, however whether this was the most proper seed to apply. Clover and herds-grass are not natives of the bog meadow, and after being introduced by artificial means, will degenerate. Had fowl-meadow grass been substituted, his success doubtless would have been greater. This valuable grass delights in being irrigated, yet will not flourish amidst stagnant water. It may be introduced by burning, or ditching and carrying on earth. In some parts of Worcester county, it has been introduced with great advantage into wet meadows, which had been useless. I regret it is not in my power, at this time, to make some more particular communications in regard to this excellent fodder.

Change of crops is ever thought of importance by the intelligent farmer. In every soil there are ingredients suited to the nourishment of certain plants. Hence, we see different soils spontaneously yielding different trees, roots and vegetables. In vain you attempt to raise particular vegetables on certain soils. The reason they will not flourish is, the soil does not possess those particular qualities or ingredients necessary for their support. Often it is impregnated with qualities which are injurious. Useless the attempt to cultivate the willow on the sandy desert, while some vegetables will flourish no where else. Every plant has a particular constitution (if I may be allowed the expression,) which requires a particular climate, soil and nutriment, and, if denied either, becomes feeble, sickly, and may die. Following land with a succession of crops of the same kind, may eventually exhaust it of those particular qualities in which they delight. A field of potatoes has been reared, of the most luxuriant growth. In the following year the same crop continued; and, though manure was abundantly supplied, it was feeble, and of scarce any value. Did not the preceding planting exhaust the soil of those particular qualities in which the root delights? Succeeded by different seed, the in-

crease was satisfactory. It being most evident, there is something in every soil particularly suited to nourish certain vegetables, may not these qualities be exhausted, and render a change expedient and profitable?

A common error we observe in husbandry is, continuing the cultivation of the same field, while others, of a better soil, are permitted to lie neglected. How often we see the son planting and sowing year after year the same spot of ground, for no better reason than that his father did before him; while by the side lie lands of a far richer soil, devoted to grazing. Old worn-out lands are followed with the plough and the hoe, affording a very scanty increase; while a rich soil is neglected, because it would require some labor to subdue it. The judicious farmer will scarcely think of estimating the expense of subduing a soil naturally rich and fertile, knowing he will be amply remunerated by the increase.

It is believed this is a too prevalent error with our farmers: they have a certain set time, in which their sowing and planting must be completed; and do not pay due regard to the season, and the state of their land. The husbandman should be carefully observant of the opening and advance of the season, and have particular respect to the state of his land in putting in his seed. Is your land wet, you must wait till it acquires sufficient warmth and dryness for the seed to vegetate. Many crops have been lost from an impatience to have done sowing and planting.

We cannot refrain from expressing our gratitude to those gentlemen who originated this society, our satisfaction in the interest taken by them in the improvement of our husbandry, and the success which has attended their measures. Certainly, a new impulse has been given to agriculture, and a spirit of inquiry excited.

You will permit me, in the name of my brethren in the ministry, to express their thanks for that act of civility, by which they have been constituted members. This acceptable notice is duly appreciated. Being most of us connected with farming parishes, bound to our people by the cords of duty and love, we cannot but take a lively interest in their temporal prosperity, as well as their moral and religious improvement.

Industry is of the first importance to the farmer. Neglect your farm, and your farm will neglect you. Solomon was a wise observer, and a practical preacher. His observations on men and things, and the lessons he has left us, are of inestimable value. The picture he has drawn of the indolent man, is done with the pencil of truth: "I went by the field of the slothful and by the vineyard of the man void of understanding; and, lo! it was all grown over with thorns, and nettles had covered the face thereof, and the stone wall thereof was broken down. Then I saw, and considered it well: I looked upon it, and received instruction. Yet a little sleep, a little slumber, a little folding of the hands to sleep; so shall thy poverty come as one that travelleth, and thy want as an armed man." With industry must economy be united. Every experienced husbandman, who has only his farm for his support, has learned that close calculation is necessary. In past years, the enhanced price of produce could support ex-

penses which now require retrenchment. We have pleasure in knowing, our intelligent farmers are learning the lesson, and beginning to live within compass. With our industry and economy, let us combine a humble dependence on that Superintending Power, who has given us a good land, is the great parent of the human family, and whose favor we have reason to expect, in proportion to our faithful exertions.

From the Boston Patriot of February 13.

NORTHERN COTTON.

The bolls of Cotton forwarded to us with the following communication, are large and well filled. They are even larger than several specimens of the plant produced in Louisiana, which have been heretofore shown to us.—With our highly intelligent correspondent, however, we agree, that the culture of Cotton in the Northern States cannot at present be productive of profit. The high price of labor, compared with that of slaves, is an obstacle.

BRINSLEY PLACE, (Roxbury,) Feb. 14.

Messrs. Editors.—In your paper of yesterday, I noticed a communication from the New-York Statesman, on the cultivation of Cotton in the Northern States, in which the result of experiments made in that State and Connecticut was given.

On the first of May last, I planted about twenty hills of Cotton, three feet apart, the ground having been previously manured: it came up on the 18th; and on the 5th of November, I picked a number of bolls perfectly ripe. The first frost which affected the plants, was on the 22d of October, but many of the bolls had at that time attained their full size, although there were still blossoms on the plants.

I send you some of the bolls, in which the Cotton appears delicate and of a good quality.

I should have planted the Cotton early in April, which would have given nearly thirty days more for the plants to come to maturity, but could not obtain the seed.

Last summer, Com. Bainbridge procured and sent me some seeds from South-Carolina; and this year, I shall make a more extensive experiment, but am not sanguine that this valuable staple of the south, and one of our chief articles of export, can be cultivated to advantage so far north.

Yours, &c.

H. A. S. DEARBORN.

From the American Farmer.

RUTA BAGA—cultivated as a second crop.

Albany, N. York, 4th January, 1823.

DEAR SIR—My improvements in the ruta бага culture consists in growing them as a second crop, upon a clover lay. The grass is cut about the 15th or 20th of June. If I have manure, and the scrapings of my yards will always afford me a few loads, I take about a dozen carts full and spread it upon an acre. The ground is then immediately ploughed well, one pound of seed sown broadcast per acre, and harrowed with a light harrow, lengthwise of the furrow. A single thinning and cleaning with the hoe, is all the further attention I give them, until they are drawn in November. My first experiment gave me a product of six hundred bushels. They should be thinned to a distance of eight or twelve inches; and for this operation a skan hoe of the required width has

decided preference over the common hoe. he stubble and roots of the clover decompose rapidly, afford nutriment and moisture, and render the soil friable and light.

I am, dear sir, yours, &c.

JOHN S. SKINNER, Esq. J. B***.

American Porcelain Clay.—The proprietors of extensive bed of what by competent judges has been pronounced genuine porcelain clay, situated in Rowen county, North Carolina, wish to ascertain if there is in the U. States a manufactory for converting this kind of clay into ware—what would be the probable cost of such an establishment—the expenses in carrying it on—and whether persons can be procured in this country who understand the business. There be any who can answer some or all of these questions, they will do service to the country as well as the proprietors, by giving information on the subject. Communications sent to the editor of the American Farmer, Baltimore, will meet the eyes of the inquirers.

THE FARMER.

BOSTON:—SATURDAY, MARCH 1, 1823.

In consequence of the length of some of the preceding articles we have been obliged to defer till our next issue valuable communications from highly respected respondents, who will, it is hoped, excuse a delay, which could not well be avoided. The ably written, and highly useful original articles which we receive frequently of late, augur favorably to our establishment. We are highly gratified in finding practical men disposed to send us the fruits of their experience in husbandry, and confident that they will find in our reward in the consciousness of having contributed to the benefit of the community, and added somewhat to the happiness of their fellow creatures.

We hope, with some degree of confidence, that the liberality of the New England Farmer, will be found as connected with "the greatest good of the greatest number," that many a "good man and true" will find us a helping hand, or a counselling head, who will not yet favored us with his assistance. It is a good general rule that whatever benefits the whole community promotes the private interest of every individual in that community; and of course every individual has interest in the diffusion of agricultural knowledge, though he may not himself be employed in agricultural pursuits.

The Connecticut Herald, a newspaper printed at New Haven, is now conducted by Dr. Percival, who has acquired much reputation as a poet. Many people have erroneously supposed that a man who is an adept in writing verses, must, of course, be a novice in every thing else. But, we doubt not that Dr. Percival will prove that the same intellectual powers which may be applied to poetical eminence, may establish a claim to celebrity in any of the pursuits of literature or science to which he may think proper to turn his attention.

FARMER SUMMARY OF NEWS.

CONGRESS.—Mr. Johnson, of Ken. introduced in the Senate, a resolution, which was afterwards modified by Mr. Mills, for instructing the committee of the Judiciary to inquire into the expediency of collecting and digesting into one bill all the acts of Congress relative to the courts of the United States; and to report some mode of effecting that object, together with such suggestions as might best promote the ends of justice.—

This bill was agreed to. The Vice President of the Senate, having withdrawn from the chair, Mr. Gaillard, of S. C. was chosen President *pro tem* by 32 votes, the whole number being 42. A bill to provide for the settlement of Gov. Tompkins' accounts has passed both houses. The New Tariff Bill has been debated with great warmth and animation, but nothing respecting it has yet met with a final decision. A resolution has been agreed to for appropriating \$50,000 for constructing docks and wharves, connected with Rogers' Marine Railway, or inclined plane. But little matter of much general interest has, however, been finally settled since our last.

FOREIGN.—A letter to the editor of the Aurora, dated at Curacao, Jan. 18th, says, "An hour ago a Colombian schooner of war, hove too, off this harbor, and sent her boat on shore. She has had only six days passage from Maracaibo, which is closely blockaded by 29 vessels of war, under Com. Belluche, and that Gen. Urdanette, with 4300 men, is closely besieging the same place. Morales is completely hemmed in, and the town must necessarily fall. By the time this reaches you, it no doubt will be in the hands of the Patriots."

Passengers in a vessel arrived at New Orleans, reported that the troops under Iturbide, Emperor of Mexico, were closely blockading Vera Cruz and Alvarado. Provisions had risen to an enormous price in Mexico. No particulars had been received of the operations between Xalapa and Vera Cruz.

On the 1st of December the city of Grenada (Nicaragua) was visited by a tremendous earthquake, which cracked the walls of most of the houses—threw down the crosses before the churches—and split the tops of the mountains in the vicinity.

It is reported that the Spaniards in Peru have commenced negotiations with Gen. San Martin to leave the country, and there is reason to believe that the treaty will be effected.

The prospects of the republic of Colombia are said to be flattering. Morales had evacuated Maracaibo, and marched for Porto Cavello. Gen. Montilla was in his rear with 4300 troops. Paez was in his front and occupied with a strong force, all the passes leading to Porto Cavello. The Royalists have little naval force, and the Republican squadron possesses command of the sea.

DOMESTIC.—Com. Porter's squadron, intended to chastise the pirates on the coast of Cuba, sailed on the 14th Feb.

Messrs. N. M. Haywood and Geo. N. Fisher have succeeded in recovering the goods which were stolen from their store on the 8th ult. The thieves were traced to St. Armond, in Canada, and with the assistance of Benj. Thacher, of Montreal, and Mr. Warren Jones, of Montpelier, (Vt.) the whole of the goods were recovered, and, together with one of the thieves, whose name is Edwards, were brought to this city on Monday—the other had not been detected.

In the State of Maine there are two colleges, and from 20 to 30 academies, endowed by the state. Every town is, by law, obliged to raise an annual tax, equal at least to forty cents on each of its inhabitants. There is, throughout the state, one school-house for every 200 of its inhabitants, making about 1500 in the whole.

The late fire at Meredith.—All the girls that leaped from the windows, are very seriously injured. Two or three, it is supposed by the surgeons, mortally. The spines of the backs of six of them were materially injured; one had her skull fractured, and the flesh of her forehead lacerated, in a most shocking manner, also the bone of her right thigh broken very badly, the upper extremity of which was driven through the flesh into the snow or earth. Others being pushed through the windows, face foremost, struck with their hands and faces, and dislocated both wrists, and cut and bruised their foreheads and eyes. Others received their weight upon their feet, and dislocated their ankles. Every one remained senseless and motionless till born away by their friends.—*Dover paper.*

Lead.—Mr. Tod, in a late Speech in Congress, stated that in the vicinity of the Mississippi and Missouri rivers, there are miles in extent, where, take up earth without selection, and 100 pounds of it will produce more than 80 pounds of lead, with fuel at hand in abundance.

Colonel Theodore Lyman, Jun. of this city, has been elected Brigadier-General, vice General Sullivan, resigned.

A man named O'Bannan publicly and solemnly notifies the bank of Kentucky that, if they do not take the depreciated currency of the State in payment of their demands on him, they shall never get a dollar of principal or interest; and at the same time he informs all executioners of the law that, if they attempt to serve any process on his person, he will, as "soon thereafter as he can put a period to THEIR EARTHLY CAREER."

A woman in Pennsylvania, in a fit of insanity, lately cut off the head of her infant, only 17 days old. On being inquired why she had done it, she replied—"I had to do it," and repeated the words at the Coroner's request.

STRAW CUTTERS:

One of the Farmers best Implements, this season.

ON hand and for sale at the AGRICULTURAL ESTABLISHMENT, No. 20, Merchant's Row—Hand and Machue STRAW CUTTERS, some very low prices.

One ENGLISH MACHINE, which will be sold for half the cost and charges.

Several HAND MACHINES, suitable for private stables. Boston, March 1.

PRICES OF COUNTRY PRODUCE, &c.

[Revised and corrected every Friday.]

		FROM	TO
		D. C.	D. C.
ASHES, pot, 1st qual.	ton.	147 00	150 00
pearl do.		155 00	157 00
BEANS, white,	bush	90	1 00
BEEF, mess, 200 cwt.	bbl.	9 00	9 50
" No. 1.		8 00	8 50
" No. 2.		6 50	7 00
BUTTER, inspect. 1st qual.	lb.	14	15
" 2d qual.		12	13
small kegs, family,		16	17
CHEESE, new milk		7	9
FLAX		8	9
FLAX SEED	bush	90	1 00
FLOUR, Baltimore, superfine,	bbl.	7 25	7 50
Genesee		7 50	
Rye, best		4 50	4 75
GRAIN, Rye	bush	85	90
Corn		72	75
Barley		68	70
Oats		44	47
HOGS' LARD, 1st sort	lb.	9	
HOPS, No. 1,		11	13
LIME,	cask	1 25	1 50
OIL, Linseed, American	gal.	65	70
PLASTER PARIS	ton.	3 00	3 25
PORK, Navy Mess	bbl.	12 00	12 50
Bone Middlings		14 50	15 00
Cargo, No. 1,		12 00	12 50
Cargo, No. 2,		11 00	11 50
SEEDS, Herd's Grass	bush	2 25	2 50
Clover	lb.	8	9
WOOL, Merino, full blood, washed		60	62
do. do. unwashed		55	58
do. 3-4 washed		47	50
do. 1-2 do.		44	46
Native	do.	57	40
Pulled, Lamb's, 1st sort		56	58
do. Spinning, 1st sort		47	50

PROVISION MARKET.

BEEF, best pieces	lb.	8	10
PORK, fresh		5	6
VEAL,		6	8
MUTTON,		3	7
POULTRY,		7	9
BUTTER, keg & tub		16	17
lump, best		20	22
EGGS,	doz.	23	25
MEAL, Rye,	bush	90	
Indian,		80	85
POTATOES,		37	
CIDER, liquor,	bbl.	1 50	
HAY, best,	ton.	22 00	24 00

THE FARMER'S LOT.

Sweet is the farmer's humble lot,

Unknown to anguish, care and strife,

Happy and peaceful is his cot,

He glides adown the hill of life;

To him that vale is spread in flowers,

And grac'd with amaranthine bowers,

And pleasure and delight are there,

And dove-eyed joy with laughing air.

How sweet to roam at glittering dawn,

Adown the violent-spangled glade,

A diamond sea on every lawn,

A tuneful choir in every shade;

And fleecy clouds of purple dye,

Flitting athwart the vermilion sky,

And hills in emeraldine vests,

And wrapt in gold their flaming crests.

O! let me ever, ever dwell,

From vice and folly far away,

And roam along the woodland dell,

And tune my rustic roundelay:

And when old age with soft decay,

Steals the rose of youth away,

Then let me press the cypress wreath,

And sweetly sleep the sleep of death.

False Liberty.—In the work of James I, entitled "True Law of Free Monarchy," it is laid down that a free monarchy is one in which the monarch is perfectly free to do as he pleases.—We have heard of another friend to freedom, who carried his ideas of liberty still farther than this wise prince. "Liberty," he said, "consists in my having a right to do what I please, and to make every body else do what I please to have them do."

Disadvantages of a scattered population.—Emigration spreads mankind, which weakens the defence of a nation, and lessens the comfort of living. Men, thinly scattered, make a shift, but a bad shift, without many things. A smith is ten miles off: they'll do without a nail or a staple. A taylor is far from them: they'll patch their own clothes. It is being concentrated, which produces comfort and convenience.

Advantages of Family Connexions.—Every man who takes an active part in the concerns of this world has need of friends. If he has to find them, and prove them, half his life is spent before he knows that they can be relied on. Relations are, generally, a man's friends, to whom, when in real distress, he will resort for assistance, notwithstanding family differences may have raised temporary barriers against the courtesies of friendship. An old lawyer, who had much experience in making wills, declared that, after people had deliberated long, and thought of many for their executors, they settled at last, by fixing on their relations. This shows the universality of the principle.

Description of a Book.—You might read half an hour and ask yourself what you had been reading: there were so many words to so little matter that you might as well undertake to extract sun beams from cucumbers, as to obtain the light of intellect from such a mass of opacity.

A Good Conscience.—How sweet the slumbers of him who can lie down on his pillow and review the transactions of every day without

condemning himself. A good conscience is the firmest opiate. The Materia Medica cannot supply one half so efficacious and pleasant; and all the nabobs together, if they were to unite their fortunes in one general contribution, could not purchase a similar one.

Genius.—Every man of common organization has the power of becoming a man of genius, if to this be added, a solitary devotion to art, and a vehement passion for glory. It is the capacity of long attention which, in the present day, must make one man superior to another.

To make Size from Potatoes.

One of the beneficial uses of potatoes, not perhaps generally known, is, that the starch of them, quite fresh, and washed only once, may be employed to make size, which, mixed with chalk, and diluted in a little water, forms a very beautiful and good white for ceilings. This size has no smell, while animal size, which putrefies so readily, always exhales a very disagreeable odour. That of potatoes, as it is very little subject to putrefaction, appears, from experience, to be more durable in tenacity and whiteness; and, for white-washing, should be preferred to animal size, the decomposition of which is always accompanied with unhealthy exhalations.

From the Baltimore Morning Chronicle.

THE MECHANIC.

There is no condition in life better calculated than that of a laborious mechanic, for a man to feel and realize a proper sense of his own dignity and independence. He retires to his meals from the fatigues of the day, with a full conviction that his sturdy hand has earned the refreshments of his table. He feels that his wealthy neighbor cannot enjoy even his opulence without his assistance. His time never hangs upon his hands; and his robust frame and his hardy sinews attest how essential this exercise is to the health of his body. He progresses onward, as it were by inches, to competence; and he learns the practical lesson of economy and frugality in his family expenditures. Removed from the vice and gorgeous temptations of a fashionable life, he knows how to bridle his ambition; he feels the blessings of the family hearth, and can look without a sigh on the gaudy pageantry of the day. This is a true moral independence—this curb on our unruly desires, this temperance in the exercise of all our wishes, are the very materials that constitute valuable citizens. It should be the pride, as undoubtedly it is the right of a laboring man to indulge in such ideas. Boys that are put out as apprentices to mechanical profession are taken many times from a state of poverty and ignorance, and prepared for fulfilling afterwards honorable stations. If they would but properly comprehend the full extent of such benefits, they would see nothing but their future honor, dignity and independence in their own indentures. They are learning, not as they are too prone to believe, the alphabet of servitude and degradation, but the rudiments of faith, and industry, punctuality, economy, and all those virtues that decorate and adorn the family hearth. They are now giving pledges to their masters of what their future character will be, when they, in their

turn, will be called upon to perform their part on the grand theatre of human life. It is a noble sight, and one of the best symptoms of the long continuance of our free republican institutions, when we behold apprentices alert, vigilant, and industrious, prompt to learn and zealous to excel. They may hear of naval and military glory; but theirs is a glory more permanent. The State calls but here and there and now and then, for heroes—this is only during the period of carnage and war, of butchery and of blood. The glory of a laboring man is connected with all that is dear in human life—it is identified with peace and contentment, with the early smoke that arises from the family cottage, with the bleat of the merino flocks, with the ripening harvest that seems nod as if impatient of the sickle. These triumphs are not won by blood and carnage; they are pacific victories, and let it be remembered that the Saviour of the world is called the Prince of Peace.

Mr. Thomas Jeffreys, of Melksham, Wiltshire, (England,) gave a dinner on Tuesday the 29th ult. to 22 of his neighbors, all residing in the aforesaid parish, whose ages together amounted to 2000 years. The hard winter, which began on Christmas Eve, 1739, was very familiar to many of the company, and some well remember the ice to have been more than a yard in thickness in many of the ponds in the vicinity.

Cursing according to Law.—Some years since when a scarcity prevailed in Connecticut, a poor man by the name of Crocker, went to a rich farmer whom he knew to possess a surplus of Indian corn, and tendered him the highest price for a bushel of it; but the farmer refused to sell, pretending that he had none to spare; whereas, it was evidently false; and that he only hoarded it up for the present, as some rich men do, to starve buyers into the necessity of giving them the extortionate price they wish to take. Upon this, Crocker gave him his full character in which it seems, he did not take the name of God in vain. However, the farmer immediately arraigned him for abuse, before one Justice Hyde, and when our pauper was called to answer to the charge, and make his defence instead of attorneys and law books, he produced only a bible, (for bibles were then regarded as a treasure) and read a passage which says, "Cursed is the man that withholdeth corn from the poor, and the people shall curse him." Here he begged that he had done no more than what he had authorised and expressly commanded; turning to the old Gripus who had prosecuted him, said, "God curses you! and I curse you. Do you curse him too, Esquire Hyde, for on your curses is worth two of mine!"

A gentleman complimented a lady on her improved appearance. 'You are guilty of flattery,' said the lady. 'Not so,' replied the gentleman, 'for I vow you are as plump as a pidge.' 'At first,' rejoined the lady, 'I thought you guilty of flattery only, but now I find you are actually making game of me.'

He that will not reason, is a bigot; he that cannot reason, is a fool; and he that dares not reason, is a slave.

NEW ENGLAND FARMER.

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VOL. I.

BOSTON, SATURDAY, MARCH 8, 1823.

No. 32.

DISEASES OF CATTLE.

SELECTED AND COMPILED FROM THE BEST AUTHORS,
BY THE EDITOR.

Grain Sick.

The first symptoms of this disease are a dull, heavy appearance of the eyes of the animal; it frequently shifts about from one side to the other, and when let loose, or driven about, complains very much. On examining her, a fulness may be perceived betwixt the hip and ribs, on the opposite side to the milking one, if pressed with the hand; this fulness will be felt to consist in the extension of the stomach. As the disease advances a loss of milk ensues, and a total dislike to any food.

This disease is caused by a surfeit of grain, and its remedies are bleeding and purging; the first to relieve the urgent symptoms, the second to remove the cause of the malady. The quantity of blood, according to Dr. Skellet, should not be less than from two to three quarts; but he prescribes for large cows, in the vicinity of London, perhaps a smaller quantity would be preferable for animals of but middling size.—The purging drink recommended by the same author is as follows:

Sulphur from 8 to 12 or 16 oz. proportioning it to the strength of the animal.

Nitre, 2 oz.

Turmeric or Cummin seeds, of each 1 oz.

When this has operated in unloading the stomach, the weakness of that organ, the loss of appetite which ensues, and the deficiency of milk connected with it, will be repaired by decoctions of an aromatic and bracing nature, such as coriander, ginger, aniseed, &c. Diluent waters and mashes form the proper food for several days.

Strains and Bruises.

When these accidents occur in a considerable degree, or if an important part has been injured, bleeding is highly proper. As inflammation is the common effect of these injuries, fomentations are at first the most proper applications; and, when the inflammation has subsided, the ointment recommended for swollen udder* may be rubbed on the part two or three times a day. When any part of the limbs has been strained, as to occasion lameness, if the lameness continues after this plan has been tried, it will be advisable to have recourse to a blister, which will be found more effectual than the most celebrated strain oils.

In slight bruises from the pressure of the udder, or other causes, the following lotion is effectual:

Gourlard's extract ½ oz.
Vinegar 4 oz.
Water 1 pt.

Mix. [White's Treatise.]

Warts, or Horny Excrescences.

These are affections of the skin which in cows do not go deep; they destroy the roots of the hair, wherever they form, and are of a firm and horny texture, and readily give way when pulled or roughly handled, which occa-

sions them to bleed, and shows their connexion with the vessels of the skin. They readily yield to emollient ointments, particularly to goose grease, which should be frequently rubbed on them till the excrescences fall off.

Swellings on the Joints and Bones.

Swellings on the joints and bones are generally very painful to the touch, attended with inflammation and fever. If the swelling comes on suddenly, and its increase is rapid, it generally terminates in suppuration. If situated on the joint, a discharge of the liquor of the joint, or joint oil, is the consequence, which is dangerous and troublesome to cure. On the contrary, if the swelling comes gradually, with little pain, and a hard callous substance is felt, and if early attempts are not made to stop its progress, it will end in a stiff joint, and all attempts to cure it will be in vain.

This disease generally proceeds from kicks or blows with stools, &c. or violent strains.

When the swelling comes on rapidly, with much pain and inflammation, bleeding and purging should be immediately resorted to. The purge should be as follows:

Epsom salt 1 lb.—Nitre 2 oz.—Ginger 2 oz.

Fomentations should be applied twice or three times a day. The following is recommended by Dr. Skellet:

Take of Wormwood and Southernwood, of each, two handfuls,

Poppy heads, four or five handfuls,

Elder flowers, a handful,

Commomile flowers, 4 oz.

Bay and Juniper berries, of each, 1 oz.

Crude Sal Ammoniac and Potash, each 2 oz.*

Boil these materials in four quarts of spring water, till reduced to three. Then foment the swelling with flannels, as hot as possible, for a quarter of an hour or more; after which, the flannels are to be bound over the part till the time of fomenting again. This operation may be repeated for two or three days, at which period the inflammation will probably be on the decline, when the following method must be adopted.

Take of Spanish flies in fine powder, 2 dr.

Spirits of Ammonia 4 oz.

Mix together, and rub a little of the mixture into the part affected; after which a flannel roller is to be slightly put on, and kept on till a profuse discharge or blistering takes place, which will form into a crust, which should not be rubbed off.

If suppuration has already begun, or the disease so far advanced that it cannot be avoided, it should be brought to a head as soon as possible; after which the following balsam may be applied once or twice a day.

Take of compound tincture of myrrh 2 oz.

Blue vitriol water ½ oz.

The vitriol water may be made by dissolving ten drachms of blue vitriol in powder, in a pint of hot water; the balsam to be well shaken to-

*No doubt a part of these materials only, might answer a good purpose, and should be applied when all cannot conveniently be obtained.

gether previous to using it. Should there be any discharge of the joint oil it may be necessary to proceed as hereafter will be directed under the head *Loss of Joint Oil*. When the scurf falls off, which the blistering has produced, and there remains any lameness, the following plaster should be applied.

Take of black and Burgundy pitch 1 lb.

Oxyroceum and Paracelsus 4 oz.

Bole Armenian and Dragon's blood 2 oz.

When this swelling comes on gradually with little pain, and is of a hard, callous, or bony nature, fomentations will be of no use. But the hair should be first cut off the part affected, and some of the under mentioned blister rubbed well into the swelling with a knife or spatula; and it may be repeated for two or three successive mornings, or till a plentiful discharge is produced.

Take of quicksilver 1 oz.

Goose grease 2 or 3 dr.

To be rubbed together in a mortar till the quicksilver is completely killed; then add the following in fine powder.

Take of Cantharides 2 dr.

Sublimate 1 dr.

Oil of Origanum 2 dr.

Marsh mallow ointment 2 oz.

Goose grease 1½ oz.

Tar 2 oz.

Oil of vitriol 1 dr.

Spirits of ammonia 1 oz.

Mix all well together.

After this operation, and the scurf had fallen off, if there should remain any hardness, and the animal is still lame, the blister may be repeated, which seldom fails to produce a perfect cure. If the animal seems weak in that part, after the above process, which is sometimes the case, the plaister of burgundy pitch, &c. before recommended, will be proper, in order to strengthen it.

Soft Swellings.

From bruises and other accidental injuries in getting up and lying down, cows are subject to soft or oedematous swellings of the joints, which are without any pain, heat or inflammation. They enlarge often to a considerable size, and yield readily to the pressure of the finger.—Though this complaint is never attended with danger, it is troublesome to the animal from its size, and even difficult to remove, if it has been of long continuance. Its management depends on making an opening into the swelling in the first instance, which may be done by running a hot iron into the lowest or most depending part of it, making two or three openings in this way where the lowest blood vessels are situated; and this operation requires particular caution, that the discharge may gradually come away, and that no vessels may be injured, from the danger of producing an internal hemorrhage, which would occasion a new increase of swelling and inflammation, instead of lessening the disease. When the openings into the swelling are properly made, and a gradual evacuation takes place, then the orifices are to be plugged

*See N. E. Farmer, No. 30, p. 233.

up, within twenty four hours, with a caustic composed of a small quantity of corrosive sublimate, in powder, placed on tow, which is to be first wetted, that the powder may adhere to it. The effect of this will be to cause a sloughing of the coats of the swelling, when a core to a certain extent will be brought out, by which means a suppuration will ensue, and the swelling be gradually reduced during its progress. The swelling is to be rubbed at the same time with the following mixture:

Linseed oil	8 oz.
Oil of turpentine	2 oz.
Oil of vitriol	1 oz.

Though the parts never regain entirely their natural size, yet by these operations, the animal will be enabled to move the joint without any inconvenience. After the wounds are healed, the remaining callous or swelling should be blistered two or three times, in order to make the joint more pliable. The blister most proper for the purpose is composed of Spanish flies and spirits of ammonia, as directed under the head "Swellings on the joints and bones."

Skellet's Treatise.

ORIGINAL COMMUNICATIONS.

TO THE EDITOR OF THE NEW ENGLAND FARMER.

In No. 30 of your paper, is a letter from Mr. J. Kenrick to Mr. Pomeroy, in which he again notices my observations on the best time for felling trees for timber; and thinks them "substantially correct," with one exception, where I say "the larger the grain the harder and stronger is the wood."—On this he remarks—"From my own experience I certainly know that coarse grained wood, though heavy, is brittle, and far from being the strongest." He adds, that wheelwrights will say, "that coarse grained wood is unfit for spokes or carts, and too brittle for pin-wood;" and he affirms, "that the strongest timber will always be found in a medium between the coarsest and the finest grained."

Mr. Kenrick's views and mine appear to be the same—so to manage timber trees as to render them most useful; and to select the fittest for the several objects to which they are applied. He appeals to his *experience*, the proper basis for reasoning on a disputed point: but to make it the test of truth, *all* the circumstances must be alike. If Mr. Kenrick will look again on my essay, he will see the importance I attach to the *age* of timber trees; that there is a time when they attain *maturity*, or *full age*, at which they may probably continue stationary for some years; but if left standing many years after their full age, that the toughness and strength of the wood are greatly impaired. The coarse grained wood which Mr. Kenrick pronounces to be brittle, I should suspect as falling under my own restriction—whose toughness and strength were impaired by age.—To make a fair experiment, select trees growing on the same soil; count the grains to find trees of the same, or nearly the same age; the grains of one coarse of another fine, and a third at a medium between the former two. From the butt end of each, take pieces of the same age (by counting the annual rings from the heart) and dress them to the same size—say an inch square and two feet long: rest their ends equally on supporters, and at their central distances between the supporters, hang on weights, increasing them

gradually until the pieces severally break. Their strength, then, will be in the proportions of the weights they sustain. I have not a shadow of doubt that the largest grained will prove the strongest wood.—This experiment, I am aware, will require some time and care, to render it satisfactory; but not more, I hope, than Mr. Kenrick may have leisure to bestow upon it. In the mean while, I take leave to offer two or three things for his consideration.

The same tree, from its butt to its top, will furnish all degrees of the grain, from the coarsest to the finest. Let him dress out as many pieces as he pleases, to the same dimensions, say at every two or more feet of its length, from its butt upward; and then by weights suspended as above mentioned, see which are the stronger. I think I run no hazard in saying, beforehand, that they will be found decreasing in strength, as the grains lessen, from the butt upwards.

Again—cut off the extreme end of a limb of an old tree (say an apple tree, such as he has often pruned) where it is an inch in diameter; and at the same time cut off a young shoot, of the same diameter, springing from the trunk, or a large limb, of the same tree. In the latter he may count perhaps five grains—in the former, twenty or more. The piece of the old limb he knows will be found extremely brittle; but the young shoot very tough and strong. Mr. Kenrick must also have noticed the much greater strength of the extreme ends of the limbs of young trees, compared with the extreme ends of the branches of old trees—supposing both to have sprung from the seeds, and to have remained ungrafted.

What causes the striking difference in strength (which I here take for granted) between the butt cut and the higher portions of the stem of the same tree? what but the greater quantity of woody fibre in one than in the other?—A transverse cut of the butt, viewed with a microscope, would exhibit a large portion of solid matter; a like cut far up the stem, a bundle of pores connected by very thin layers of wood.

It just now occurs to me, that Lord Kaimes, in his "Gentleman Farmer," mentions the ages of trees when in their proper state for timber. He wrote, in Scotland, this valuable work, about the year 1772. Great improvements in British husbandry have been since made. In his chapter on the culture of forest trees, after directing the manner of making plantations, he treats of the grown wood. "I begin (says he) with examining at what age a tree is in perfection for the purposes of a farm. At the age of sixty, it is sufficiently large for every farming purpose; being, when cut to the square, from twelve to fifteen inches each side. I must except the oak, which even for the purposes of farming, improves till it be one hundred years old. Every oak consists of red and white wood; the former the firmest of all wood, the latter [the sap wood] good for nothing. Ash, after the growth of sixty years, *turns brittle*."—I am inclined to think the American white-oak (which appears to be very different from the oak of Great Britain) and ash, not only continue to grow, but to retain their strength, to greater ages. I am also disposed to believe that the "coarse grained wood which Mr. Kenrick and others have found to be brittle, had passed the age of maturity, and entered on the first sta-

ges of decay. At still greater ages, the wood of trees becomes more and more brittle; and at length they fall. In this way, whole forests of aged trees perish and disappear, and are succeeded by new races, sometimes of the same sorts of trees, but often of totally different kind.

In the same letter, Mr. Kenrick mentions his practice in pruning trees (fruit trees, I presume, apples and pears especially) in June; and "is satisfied that the only proper time for pruning is while the bark will peel, in June or July."—But being then full of leaves, it must be more difficult to see where to prune, than in early spring, before the buds open. My own practice has been to prune in the spring, beginning when the buds have scarcely begun to swell; and ending before the expansion of the leaves. But I never leave "stumps" of limbs. Every branch that is taken away, is cut close and even with the stem or the limb where it grew; and the healing of the wound commences and proceeds kindly as vegetation advances. If the branch cut off be large, the wound should be covered with some kind of plaster. The fine orchard in Newton known to Mr. Kenrick fifty years ago, was doubtless pruned with axe leaving stumps from two to four or five inches long. The sap, in such cases, will endeavor to climb up, and will ascend part of the way, but cannot reach their tops. These exposed to the damp air and rains, at length rot, and produce general decay. The saw is essential to correct pruning.

T. PICKERING.

Salem, Feb. 24, 1823.

FOR THE NEW ENGLAND FARMER.

Mr. Editor—While you are so laudably engaged mending the breed and condition of our domestic animals, I have thought it might not be amiss to submit to your disposal some remarks in the wish of improving the health of the great biped who superintends not only the field and the barn, but the house and its inmates.

ON DRESS, OR CLOTHING.

In devising the means of promoting and securing our physical well being, it is the business of art to counteract the irregularities of nature; to modify principles, and to supply expedients, so as to meet the emergencies of particular cases.

It is said by some persons that they wear the same clothes all the year round, implying, with a good deal of self-complacency, that they have discovered a better rule of conduct in this case than others have been able to adopt. They would, however, be quite as much wisdom in man's saying that he would have a fire of the same size, in his parlor, during every day of the year, or, that he would have no fire in any day of the year.

In our climate, which is at once variable and extreme, to suit one's clothing to our fluctuating seasons, requires no little care and attention.

From too light a dress in winter every observer must know that many young ladies, in particular, take cold, and thus lay the foundation of fatal consumption.

No degree of cold, which is at all painful can long be endured with safety.

The first requisite of a winter garment is that it be sufficient to keep us warm; and the first requisite in summer is, that it occasion a little superfluous heat and weight as possible. And at all times the entire dress should be s

ade as to leave the moving organs of the body perfectly free, so as to permit the great functions of health to go on without the least interruption from pressure or confinement. A dress that wants any of these properties cannot be conformable to reason or the conditions of health. Now is it that a dress like this, so simple in theory, so easy in execution, and so salutary in its effects, has been so little esteemed and adopted? Fashion has been the great opponent. This perverse arbitress will not bear a division of authority, nor an equal in display. Whoever is left for her, she is against. Unconditional submission is the only term of favor; and before no can be given, health and good taste must be renounced. But who shall be found of sufficient nerve to brave the sneers and contempt of the votaries of fashion?

We call ourselves a free people, but no man strictly free who does not in every thing, feel himself at liberty to obey the dictates of his head and heart, in promoting his own physical and moral health and happiness. I make these remarks on the freedom of action, because without a consciousness of possessing it, men cannot be elevated to any thing great or good. No man should believe that power and responsibility are equal; neither reason nor revelation dignifies any accountability beyond this.—We men liberty and power, and then you can convince them by motives; they may be persuaded that knowledge is good, and be incited to acquire it.

Knowledge will teach them that reason is a better guide than prejudice, that liberty is better than slavery, health than sickness, temperance than excess, &c. Now if this is true, I think it follows, that when health and fashion are opposed to each other, we should do well to prefer the former.

Many facts might be mentioned to show the influence of too much or too little clothing, in inducing or increasing diseases of every kind, especially those which affect the lungs. The quantity of the clothing should be suited to the weather. Mr. B. told me that he twice had a fit of cough and spitting of blood, by wearing his summer clothes a week after the weather became cool in September. But it is not sufficient to vary the weight or quality of dress with the seasons only; it is also necessary to change it daily with the varying temperature of the air, even in summer, in middle latitudes. When the animal powers are languid, it is difficult to keep the extremities warm; whence women in Holland have recourse to a particular apparatus for warming their feet. But for this purpose, after suitable clothing and airing, the great expedient is *bodily exercise*. There is, however, no comparison between a load of clothes in cool rooms, and a light dress in hot ones, where these circumstances only are to be taken into the account. Those who follow the former usage will escape numberless diseases, to which the followers of the latter are subject.

The inhabitants of Holland, and the English who have resided long among them, are forcibly struck with the coughs, both catarrhal and consumptive, so universally prevalent in England, at almost every season of the year. At church and at the theatre, devotion and pleasure are alike interrupted, and sometimes totally destroyed by incessant coughing and expectora-

tion; while in the largest assemblies in Holland, instances of a similar kind are hardly known. This striking difference may be ascribed to the contrast observable between the two countries in the construction of their habitations, and in the peculiarities of their dress. The Dutch apartments are cool, and their clothing warm. A Dutch woman feels herself insufferably oppressed in a room which an American or English woman would deem but moderately warm. It seems to be a fair inference that a formidable portion of the unhealthfulness and mortality in England and America depends precisely on the effect of our opposite customs in regard to clothing and lodging. How far the following description of a fashionable dress, from an English physician, may be applicable to the females in the larger towns and cities of our own country, I leave every one to decide for himself.

"Many women in the morning muffle themselves up to the chin and ears, and go about half naked all the evening, braving disease and death. The cold of our climate is sufficient annually to cut down thousands of females, who having been tenderly brought up, will not guard themselves by adequate covering against it.—But the ladies are not content with the havoc committed in this manner. Among death-bed confessions I have sometimes heard of a practice of *damping* the cobweb garments, which would otherwise hang about the limbs too loosely. By this means the killing rigor of an inclement atmosphere, is most materially assisted. The desire of obtaining a celebrity, equal to that of some monuments of ancient art, which have lately been transferred to Paris, appears to me quite as good a reason, for risking life, as many of those which have conferred mortality on the adventurers. But the beautiful followers of the *attitude* or *statue* fashion unfortunately do not stiffen into figures, like the Venus de Medicis, or like what they themselves would be in good health. The state to which they are often reduced, is one from which every body turns away with horror, except the stealer of dead bodies and the dissector."

I will close with one word on the use of flannel. This article should never be worn so long as linen or cotton is sufficient for warmth, and when it is put on by day it should be taken off at night. It is useless by night, and in this way it is a far better defence and security by day.

But is all judgment and taste to be sacrificed to health? No; there will still be sufficient scope for these, after the provisions for health are made. Colors may be suited to the complexion, the form of the garment to the shape of the wearer, expense to revenue, and the whole style of dress to the character and condition of individuals.

TO THE EDITOR OF THE NEW ENGLAND FARMER.

DEAR SIR,

I received your paper, and am greatly pleased and amused with the spirit of improvement that seems to have awakened the American farmers, &c. I find that several have written on the mode of preserving Bacon. I have my way which I will offer. It is to rub the legs over with a small quantity of salt and salt petre the night after the hogs are killed (if I can.) Then I make a pickle sufficient to cover all the legs, and boil and skim it till it is cleansed of all the scum that will rise. Then

for every twenty weight, I add one ounce of good double refined salt petre, and half a pint of molasses; scald and skim that in the brine, put it by, and let it cool, then pour it on the legs sufficient to cover them. When they are impregnated with the pickle, then smoke or dry as suits the taste. I dry the legs, and smoke the meat tub with cobs. When there is danger of flies, I put my meat back into the tub, and scald and skim the pickle, cool and put it on the bacon legs. They will keep sweet and fresh without rust, or tasting rancid or strong at a year old. The same pickle is good for pork, and will preserve the lean part good. It is also excellent for beef, but it should be put on that boiling hot. I have used the same pickle for about thirty years for all my meat, which I boil and skim, and make the additions of salt petre and molasses. WALLIS LITTLE.

Townsend, Feb. 22, 1823.

From the American Farmer.

THE HAMPTON DAIRY—Near Baltimore.

We have been kindly permitted to take from the farm register the following account of sales of butter from Gen. Ridgely's dairy, at Hampton, in the year 1822.

January,	319 lb.	sold at market	\$143 64
February,	402	do.	169 67
March,	381	do.	171 31
April,	334	do.	165 50
May,	345	do.	148 96
June,	448	do.	127 19
July,	490	do.	147 50
August,	458	do.	159 90
September,	272	do.	126 98
October,	267	do.	129 53
November,	282½	do.	134 81
December,	291	do.	138 84

4296½ lbs. sold, average
41 cts. per lb. \$1763 83
860½ used in this year.
56½ given to Mrs. Onion.

5213½ lbs. made this year.

Sold ten veal calves for \$55 00

Native Race of Cattle.—Mr. ASA RICE, jr. of Shrewsbury, in Worcester county, has brought to the Brighton Market the following Cattle, all of his own raising and fattening, weighing after being slaughtered, as follows:

A Steer, 4 years old, Feb. 10, 1821, slaughtered on the 11th Oct. same year, 1519 lbs.; Slaughtered Feb. 2, 1823, a Steer, 4 years old, the 12th April, 1581 lbs.; Feb. 2, 1823 a Cow, 13 years old last Spring, 1091 lbs.; Feb. 2, 1823, a Heifer, 3 years old the 14th May, 911 lbs.

These cattle were wholly of native breed. The Steers were weaned at 12 weeks old, and fed with nothing but hay and grass until they entered their fifth year. The Cow brought a calf at two years old, and every year since but the last.—She was milked last winter, turned out in the spring, thin in flesh, and began mealing the 1st of October last. The Heifer brought a calf at two years old, and another last spring; and was dried the last of July, and turned out, as thin as any other cow; and was fatted on account of a blemish which would eventually have spoiled her.

REMARKS

ON THE IMPROVEMENT OF CATTLE, &c.

In a Letter to Sir John Saunders Sebright, Bart. M. P. by Mr. John Wilkinson, of Lenton, near Nottingham.

Let each succeeding race employ your care,
Distinguish which to slaughter, which to spare;
Mark well the lineage,—let the purest make,
From purest blood, its just proportions take.

Having read, sir, your valuable treatise on the improvement of live stock, in a letter to Sir Joseph Banks, that great patron of all science; I have taken the liberty to enlarge upon some of your observations, and to offer to your consideration such fresh matter as appeared to me of importance to the subject. And this I have been encouraged to do, not only on account of the great pleasure you always take in questions of this nature; but also, because many of your assertions are corroborated by my own experience.

It has always occurred to me, that in order to understand the true art of breeding, we must have recourse to the first principles; and that it will be easier to show how any improved breed may be continued, when we have previously shown how it was first formed.

In the following remarks, I shall confine myself chiefly to neat cattle, as being that species of animal with which I am more particularly concerned; but it will be easy to perceive that the observations there advanced, will be applicable, in a greater or less degree, to every other kind which is destined to be the food of man.

Whether the different breeds with which we are now acquainted, descended originally from one common stock, the wild Bison, is a question, I think, hard to be determined. Of this however, we may be assured, from the very nature of the case, that the distinct breeds at first, if more than one, could have been by no means numerous; so that the great variety which we behold at present, is owing to food, to climate, or to other collateral and accidental circumstances. And perhaps of all the causes contributing to this multiplicity, none would be more effectual, than the hidden springs of nature itself.—For though we perceive that there is a strong tendency, for like to produce like, as it is usually termed; yet he that is at all conversant with nature, must perceive also, that there is a certain tendency to change. And this law of nature would soon be assisted by man, who is ever fond of novelty; and delights in diversity, even for its own sake.

Thus then, we have seen, that distinct breeds might readily be formed by the joint efforts of nature and of art; nor will it be more difficult to perceive how they might afterwards be improved. That all would be capable of improvement is too obvious to need discussion. For no one can behold any breed whatever in its more natural or less improved state, without perceiving a great variety in the shapes of individuals, their different degrees of tendency to feeding, or certain other remarkable properties, which might give to some a decided superiority over the rest. These, therefore, must be selected from the whole herd; and as you yourself, Sir, have remarked, the male and female be properly matched. When we come to this progeny, some will probably be worse, some equal to, and some even better, than the parents them-

selves. The worst must unquestionably be rejected, while the rest, and especially the best of these, are carefully to be preserved for future stock. And thus by a judicious selection of male and female, and discarding every thing that is refuse, we must continue to proceed. And by such procedure, animals have at length been produced, so different from the generality of the stock from whence they were originally taken, that none but such as are well acquainted with these matters, could have any idea, that there existed between them the least affinity. The distinction indeed between some, and their own particular variety, has scarcely been less, than the distinction between that variety and the whole species. The longer also these perfections have been continued, the more stability will they have acquired, and the more will they partake of nature itself. As to the leading properties which may constitute the excellence of any breed, or of any particular family belonging to that breed, I shall next inquire.

And first with respect to form; in which case I shall give, what I conceive to be the most important points for the true symmetry of Neat Cattle in general. These are as follows.

The head ought to be rather long, and muzzle fine; the countenance calm and placid, which indicates a disposition to get fat; the horns fine; the neck light, particularly where it joins the head; the breast wide and projecting well before the legs; the shoulders moderately broad at the top and the points well in, and when the animal is in good condition, the chine so full as to leave no hollow behind them; the fore flank* well filled up, and the girth behind the shoulders deep; the back straight, wide, and flat; the ribs broad, and the space between them and the hips small; the flank full and heavy; the belly well kept in, and not sinking low in the middle; the whole forming not a round or barrel like carcass, as some have expressed it, for this would leave a deficiency both in the upper and lower part of the ribs: the hips globular, wide across, and on a level with the back itself; the hind quarters, that is from the hips to the extremity of the rump, long and straight; the rump-points fat and coming well up to the tail; the twist wide, and the seam in the middle of it so well filled, that the whole may very nearly form a plane, perpendicular to the line of the back; the lower part of the thigh small; the tail broad and fat towards the top, but the lower part thin; the legs straight, clean, and fine boned; and when the animal is in high condition, the skin of a rich and silky appearance.

These appear to be the most material points for the formation of true symmetry in Cattle; there are others of minor consideration, which will readily be suggested by attention and experience; but I did not think it necessary to mention them here.

Many of the most important of the foregoing properties, may be expressed in the following stanzas, as descriptive of a beautiful Cow: and

* The fore flank is the lower part of the side immediately behind the fore legs.

† Perhaps the nearest description that can be given, of the carcass, would be to say, that a section of it (made by a plane passing through its middle, in a direction perpendicular to the line of the back) ought nearly to resemble an oval, whose two ends are of the same width, and whose form approaches to that of a circle; or (to those who understand the nature of the figure) an ellipse, whose eccentricity is not great.

since verse is frequently found to assist the memory, I have therefore inserted them thus

She's long in her face, she's fine in her horn,
She'll quickly get fat, without cake or corn;
She's clear in her jaws, and full in her chine,
She's heavy in flank, and wide in her loin.

She's broad in her ribs, and long in her rump,
A straight and flat back, with never a hump;
She's wide in her hips, and calm in her eyes,
She's wide in her shoulders, and thin in her thighs.

She's light in her neck, and small* in her tail,
She's wide in her breast, and good at the pail,
She's fine in her bone, and silky in skin;
She's a Grazier's without, and a Butcher's within.

Should any difficulty still remain in forming clear conception of the points described, think in such a case, I may very safely recommend a Print which I published a short time ago, and that too, without vanity; as it reflects far more credit on the artist, than on myself. In such a recommendation moreover, I feel the greater confidence, both because I was requested to publish it by many of the first agriculturists in the kingdom: and since published, it has met with their highest approbation. This print consists of a groupe of five animals, so arranged as to show the just proportion and propriety of every essential part. The Portraits were taken from the most perfect animals in my possession; and the Engraving, which is in a style far superior to that in which Cattle are generally executed, was finished with the greatest care. And if I am correct in my description for the proper formation of Cattle, the portraits in the above mentioned Print are also good; I think he who carefully compares the Portraits with the description itself, cannot long fail of being at least a very tolerable judge. For any one reading the description of a particular part, as for example, of the breast; will there find, that it ought to be wide, and project well before the legs; and on turning the Print, he will immediately see this projection shewn in the side view of the Bull; the width in the Heifer which faces him: so on, with respect to every other part. I as each animal is placed in a different position from the rest, there is no important point which is not fully presented to the view.

In the description which I have given of the formation of Cattle, I have said that the carcass ought not to be round or to approximate to the form of a barrel, as some have described it; and have offered a sufficient reason why it should not be the case. Whoever indeed takes such a form for his model, would quickly be told by a judge, that the animal was not described in its sides. I have, moreover, described the countenance as calm and placid, instead of speaking of the boldness of the eye; a reason of which will easily be discovered by the person of your singular penetration. For the boldness of the eye is frequently caused by a restless or vicious disposition; but a quiet and a docile look denotes evenness of temper, so essential to quick feeding. And we have only to consider the nature of animals in general, to perceive that this quiet disposition which I have been describing in Cattle, and which in Man might be termed indolence, has a strong tendency to make the eye appear small, rather than

* This epithet alludes to the lower part of the tail only, the higher part ought to be broad, according to the former description.

old and large. Let any one for instance, observe another whose mind is at rest from attention to outward objects; the muscles of the eyes relax and the lids themselves come closer together, in which case, the eye necessarily assumes a smaller appearance; and the contrary takes place when our attention is again excited. I must remark however, that an animal which possesses naturally every essential for quick feeding, and whose countenance indicates that disposition by the mildest appearance, may have its appearance altered by ill treatment or other accidental circumstances. I observed that the lower or bony part of the tail ought to be thin, but the upper part broad. The tail has so often been designated by the former appellation only, which is incorrect in the description of a good animal. For on the upper part of the tail of one that is in tolerable condition, there ought to be a considerable quantity of fat; but as the lower consists chiefly of bone, it ought to be thin; and will always be so, when the animal itself is a small boned one. Perhaps some may think, that the two latter observations, namely, with respect to the countenance and the tail, are but of little consequence; since however, these signs generally accompany a good animal, they ought not to be passed over; the latter is an invariable attendant; and the former naturally so, but may sometimes be altered by adventitious circumstances, as has already been observed. It is one thing to be able merely to distinguish in the gross between a good and a bad animal; but another and a far more difficult one, to be able to point out every defect however trifling, and to discover every excellence. And yet no man can arrive at any great degree of perfection in the art of breeding without making this latter kind of knowledge his chief aim and most ardent study.

Some breeders have asserted, among whom as Mr. Bakewell himself, that a disposition to get fat was necessarily combined with a shape similar to that I have been describing. The truth of this may very justly be questioned; and the examples so well chosen by yourself, prove that the above mentioned properties are not invariably found together. Had they said with you, Sir, that "this particular formation generally indicates a disposition to get fat," they could have been borne out in the assertion by the fact itself: for it must be observed, that it is one thing to say, that two qualities are necessarily combined in the same subject; and another to say, that they are invariably found together. And if this latter term would have been too strong for the occasion, and that it would, we have already seen; how much rather ought the former to be rejected? It is frequently no easy matter indeed, to determine whether two qualities are necessarily combined; nor in the question before us, is it at all necessary. For if quickness of feeding generally accompanies this peculiarity of shape (and that it does, it can never be denied,) that alone would surely be a sufficient reason for a preference to this form; to say nothing of its other and great advantages with respect to the weight of the animal, the laying on of the flesh in the prime parts, &c. &c. Perhaps these gentlemen have no design to mislead us, but were not sufficiently careful in the choice of their language. It is material however, that we should not only have clear ideas ourselves, but also, that we should convey

them to others in the most explicit terms. And in treating on any subject, we ought always to state things as they are actually found to be, and not as we might wish them. One satisfactory reason, I think, we may easily discover, why the best feeders are most frequently found amongst those animals, that at the same time possess the best shapes. For without making the former a necessary consequence of the latter; those breeders that had skill enough to select cattle of the most perfect symmetry, would also have skill enough to select out of these the best fleshed ones. For my own part, I would not keep an animal that had a bad quality of flesh, if the form were perfection itself. The observation which Dr. Jenner made to you, "that no animal whose chest was narrow could easily be made fat," is a fact borne out by almost universal experience; and I believe is satisfactorily accounted for on natural principles. For the chest being too narrow, there is want of sufficient room for the proper action of the internal organs.

The form that I have already described, is not only the best for affording the greatest weight to the animal; but the flesh is also chiefly laid on, in what is usually called, the prime parts.

I have just had occasion to speak of goodness of flesh, but how to describe this quality in any thing like adequate terms, is a thing extremely difficult.—Some persons of great experience, would very rarely be wrong, judging by the sight only. But the best method of discovering it, is by the touch; and it has a richness, a mellowness in the feel.

Here it may be very necessary to caution the inexperienced against a certain description of animals, usually called light fleshed ones.—And of these, there are too many in the hands of some breeders, not altogether destitute of eminence. The objection to such, is not on account of the quality of the flesh as regards richness, but the deficiency of its quantity when the animal is in a lean state. I have known such highly approved by some, when shewn to them alive and made very fat, but this has certainly been for want of better judgment; and had the same persons been able to distinguish between fat and lean, they must have drawn a very different conclusion. This kind is profitable, neither to the grazier, nor yet to the consumer. They are not profitable to the grazier; because in the first place, they are naturally tender—and moreover, they carry so small a quantity of flesh in their lean state, that they have much to do, when put to feeding, before they come to any tolerable weight. Neither are they profitable to the consumer; for fat without lean is of no other use, than to be wasted in the kitchen. Whenever they are found in the hands of a Breeder, it is generally in the hands of such as are in the habit of keeping their stock remarkably high; and when they are sold, and fairly kept as store stock, they bring a considerable loss to the purchaser, and disgrace on the original possessor. It is to be hoped indeed, that this kind of animal will soon be exploded in Neat Cattle, as it has been long ago in the new Leicester Sheep.* Of

* I have here been misunderstood by one gentleman, who supposed I was speaking against the breed of new Leicester sheep; whereas I was only speaking against a particular variety of this breed; namely, light fleshed

this we may be assured, whenever a stock is generally known to be of this description, the Breeder himself will soon fall into disrepute.

There is another kind which carry plenty of lean flesh, but of a bad quality. These are invariably slow feeders; and may always be discovered by the touch, the flesh being naturally hard. Some of these are so bad, that when put to the best keeping and continued at it ever so long, they will scarcely have a stone weight of fat, either within or without.

The perfection of breeding, as far as flesh is concerned, is a great quantity of rich lean flesh in the first instance, which when the animal is well kept, will soon be covered with a proper proportion of fat. And such not only take a shorter time in preparing for the stall than any other; but their beef will also sell for more a pound; being of the very first quality, and the kind that is eagerly sought after for the tables of our nobility and gentry. It is not here meant that this kind can never be made too fat; they may be very much so, this however can always be prevented by the time allowed for feeding.

In a word; it is not the animal which has scarcely any flesh, when at a store keeping, and which when fed, will consist almost of fat alone, which is the most profitable either to the grazier, or yet to the consumer; nor is it the animal, whose flesh is ever so abundant, if hard and bad, and incapable of having its proper quantity of fat; but it is that, which when at store pasturage only, carries a great quantity of rich lean flesh, and which by good keeping, may be made as fat as we please. And of these three sorts of animals, I think the first nearly as unprofitable as the second, notwithstanding the injudicious praise they sometimes meet with.

Having already treated on those two important qualifications, good symmetry with richness of flesh, I shall now controvert a hackneyed assertion, that a great tendency to feeding, is incompatible with a great tendency to milking. And here I shall observe first, that there seemed to be no reason to draw this conclusion before the fact was ascertained by experience, and secondly, that the experience of some in the present day proves the assertion untrue.

In the first place then, it may be remarked generally, that tendency and effect are two very different things; that a tendency may exist, when its effect is wholly or partly destroyed by some other counteracting cause, that when the effect of such counteracting cause can be removed, the other cause may be wholly productive. If it were assumed therefore (for I am now speaking independent of the experience I shall afterwards advance) that a cow, while giving a great quantity of milk, cannot possibly keep herself in good condition; because so great a portion of the food being converted into milk, the carcass could not properly be supported; yet I think it would be a rash conclusion, to infer from hence, that the same animal could not have a great tendency to get fat; and that when dried of her milk, this tendency

ones: a sort which had been introduced by some, but were soon rejected by all good judges. As to the breed itself, my opinion may be best ascertained, by saying it is the kind I have always kept. I do not here, however, mean to speak against any other breed whatever, as different kinds may suit different situations.

might not soon produce its corresponding effect: for the effect of cause, namely, the tendency of feeding, would remain unopposed in its effects, and be wholly operative. The assumption however here mentioned, ought never to have been made: as well might it have been contended by those who had seen only a bad race of hard fleshed animals, that there were therefore no other kind, that would produce a much greater quantity of beef from a given quantity of food.

But secondly, to come to the matter of fact, and to speak from experience itself. Some animals have the power of obtaining a greater degree of nourishment from a given quantity of food, than others of an inferior description; and therefore, though some of the former may give a larger quantity of milk than the latter, yet their carcasses also, may at the same time, be better supported. And I have frequently found cows that are great milkers, to keep themselves at the same time in high condition, to feed with the quickest despatch when dried of their milk, and whose descendants will arrive at the earliest maturity; a practical proof, that a great tendency to feeding is not incompatible with a great tendency to milking. Those also who are anxious to witness the same thing, may have it shown to them when they please, as many such animals can be produced.

I suspect the assertion here controverted, originated not so much with those who have done nothing towards the improvement of cattle, as with those who have been content with doing but little. These latter being anxious to sell before they had sufficiently improved their own breeds, asserted, and asserted truly, that where cattle are to be bred for the slaughter, it is of more consequence to have them early feeders than great milkers. Of this I have no doubt; for if only one of these properties could be obtained, I am fully persuaded, that the former would be more advantageous than the latter. But if on the contrary both can be combined, and that they can, I am convinced by experience; we shall not think very highly of those breeds which possess but one of them. For who, that is conversant in these things, does not know the great difference between the value of the produce of two cows, the one a good and the other a bad milker, if we take that produce for one year only? I shall not here mention the great quantity of milk that some of my own cows have given, and the short time that it has afterwards required to feed them, lest it should seem to partake of an air of boasting.

When we consider the skill, the perseverance, and the capital required to improve a breed in the carcass only, it is not surprising that so few have attempted it; and when we consider, that the union of great milking with quickness of feeding, required a two fold labor; we might almost wonder that it has been undertaken at all. But yet sir, whatever difficulties may lie in the way, every Breeder who aims at superiority, must follow the excellent advice which you have given; and with respect to which, I cannot do better, than quote your own words. "We should, therefore, endeavor to obtain all the properties that are essential to the animals we breed." And this rule was surely practicable in the case before us; by selecting those animals that were the most perfect in point of

form, in quality of flesh, and so on; and again by selecting out of these the very best milkers, using in other respects the same care as I have mentioned in a former part of my letter. Such a procedure in the formation of a breed, clearly adds very considerably to the expense in the first instance; but the advantages afterwards derived are more than a sufficient compensation, as the property of milking is inherited as readily as that of peculiarity of shape.

(TO BE CONTINUED.)

From the American Farmer.

CIDER ROYAL AND BARLEY COFFEE.

Vineyard, near Georgetown, Feb. 8, 1823.

J. S. SKINNER, Esq.

Dear Sir—I observe in your Farmer of yesterday, a receipt to make Cider Oil, as you call it—I have some doubts that the person who furnished you with the receipt, is ignorant of what it exactly is; as well as of the manner of making it—I have seen it made very often by Germans, and it is by them called cider royal; and by putting sassafras, or any thing else to flavor it, I am certain would injure it; the way I have seen it made is as follows:

To make Cider Royal.

Take a clean well hooped cask, and burn a sulphur match in it, and keep the bung close stopped for about two hours; then put in four gallons of good apple or cider brandy; then take four gallons of the cider immediately from the press, and put it to the brandy, shaking the barrel well to absorb the sulphurous gas, (the cider ought to be strained through a flannel,) and then fill the barrel with the cider before any fermentation has taken place, and bung up the barrel tight immediately, and put it in a cool place, and rack it off in March following. If it is not fine when racked, it may be fined with the whites of eggs—and as soon as quite bright, rack it again into a clean cask and it will keep for years. Some persons do not sulphur the cask, under an idea that it produces head-ache; others put but three gallons of brandy and from ten to twelve pounds of sugar to it. It is, if properly made, and of good cider, a fine vinous beverage, to drink in summer, when diluted with water; and in the German Counties of Pennsylvania, it was the favorite drink, when they got any refreshment at taverns, by all those persons who could not afford to get wine. Those persons that I knew most famous for making good cider royal, put rye whiskey to it instead of brandy, as it sooner became assimilated to the cider and vinous than brandy; that is, it was not to be tasted, when brandy could always be discovered by a nice palate. Brandy put to cider or wine after it is well fermented, never loses its flavor in either cider or wine, and instead of becoming vinous, as it ought to be, by fermentation, it is only branded cider, or what used to be called, some 30 or 40 years ago, *Sampson*; which was one gill of brandy or other spirits, put to a tankard of cider, which always produced head-aches.

You also, in the last Farmer, make mention of the naked Barley—I remember it for at least fifty years, and it was used by the German farmers of a part of York County, Pennsylvania, and Frederick County, Maryland, to make coffee of; and I recollect of hearing it spoken

of as infinitely superior to Rye, as to its flavor and salubrity—but I do not recollect of seeing it for upwards of thirty years; but formerly I have seen it brought to York Town, Pennsylvania, and Frederick Town, Maryland, for sale by the name of Coffee Barley—The Germans called it "*Coffedgerst*."

To make Barley Coffee.

Roast it in the manner that common coffee is roasted, then take one portion of coffee to about as much as one third of the quantity you commonly use for one meal; then take three times that quantity of the roasted barley whole (not being ground) and boil it by itself, then strain through a tin strainer, with smaller holes than a cullender; put that liquor over the first portion of coffee and make in the usual manner.

I knew a very respectable Clergyman, who was fond of some of the good things of this world; that for several years, I was acquainted in his family, always used his coffee made in the above manner—and he used it, because he thought it an improvement on foreign coffee.

P. S.—I have called on a German's son, now middle aged, who says that he has often assisted his father in making Cider Royal, and he says, that my receipt for making it is correct.—His father was famous for making good cider royal of the best quality. He himself, attempted this last year to make one barrel of it, and it turns out to be as hard as the hardest cider.—He spoke to a person who makes good cider, and one whom he could depend on, and gave him an extra price: the cider was made early in the morning, and brought to him before 9 o'clock; he immediately drew off some of the cider, and put to it ten pounds of sugar, and four gallons of apple brandy, and bunged them up tight immediately. He attributes the hardness to a fermentation having taken place before the sugar and brandy was put to it, instead of the sugar and brandy being put into the cask first.

THE FARMER.

BOSTON:—SATURDAY, MARCH 8, 1823.

AGRICULTURAL LECTURES AT DARTMOUTH COLLEGE.

We learn with much pleasure that Professor DANA, of Dartmouth College, proposes to give a course of Lectures, accompanied with experiments on the *general principles of Agriculture*, embracing, particularly, the subject of *Soils and Manures*. The course, we are informed, will be completed in twelve lectures, beginning on the first Wednesday of April, and continued daily. We are told that Professor Dana would be gratified by the attendance of any gentleman or practical farmer, and will give him, gratis, the privilege of such attendance. We hope the Professor will meet with due encouragement in this benevolent project; and that he will successfully employ the lights of science to direct the course of the most useful of the arts.—That he possesses the qualifications which may enable him to apply a knowledge of Chemistry to very important purposes, as respects Agriculture, will, we think, be evident to those who have perused his "*Report on a disease afflicting Neat Cattle, in Burton, N. H.*" published in our paper No. 14, p. 105.

ON MAKING MAPLE SUGAR.

We have repeatedly been requested by our correspondents to furnish some statements relative to the cheapest and best way of making and cleansing maple

gar. We had hoped that Mr. Preston, of Stockport, would, before this time, have obliged us with some marks on this subject, as he informs us [N. E. Farmer, No. 23, p. 182,] that he has "had upwards of forty years experience and observation in manufacturing maple sugar in the same orchard," and "had thoughts of publishing some directions for public benefit." &c. We still wish that the gentleman would let our paper the vehicle of some remarks on this subject. But as the season for manufacturing that article has nearly arrived, we proceed to give such information as it is in our power to communicate; and shall be gratified if it proves useful to some who are engaged in this important kind of domestic manufacture. The following directions were obligingly furnished by Henry Lake, Jr. Esq. of Rockingham, Vermont, who has had much experience in the art to which they refer.

"Scald your buckets for catching sap before tapping the trees.
 "The sap should be kept clean from dirt through the process of boiling.
 "Avoid leaving your sap long in an iron kettle, as rust will give it a dark color.
 "When nearly boiled down to sirup (or thin molasses) a little lime thrown into the kettle will be of use.
 "At this stage of boiling as well as in sugaring off, it should be taken to avoid heating the top of the kettle too hot, or any other way burning, as it will injure the color, as well as the flavor of the sugar.
 "When the sirup is well boiled down, turn it while in a clean wooden vessel, let it stand two or three days and settle: then turn it carefully from the bottom and strain it.
 "Hang it over a gentle fire, and when it is warm, in one pint of milk to four or five gallons sirup, which will rise as it begins to boil, and must be taken with a skimmer.
 "If you wish to make your sugar very nice, cool it in one half or two thirds will grain, turn it hot into a tight cask; let it stand undisturbed in a cellar, or in a cool place until it is grained at the bottom.—"Then off the molasses and turn the cask bottom upwards over some vessel to catch what will drain out: it stand as long as any will drop, then set your cask right, and what moisture remains will settle to the bottom, leaving the top dry and of a superior quality.
 "If you wish to make dry sugar without draining, there are various modes of ascertaining when it is boiled sufficiently; perhaps as sure a method is to drop it on snow and let it cool; if it is brittle as resin it is sufficiently boiled."

ON BOILING MAPLE SAP BY STEAM.

Mr. Preston requests to know "whether there is not better mode of boiling the sap of the sugar maple than in iron kettles over the fire?" and says, "I am indebted to these inquiries by the circumstance of a young man, lately from an Eastern State, having erected a wooden distillery that is boiled by steam conveyed into the bottom of the cistern by wooden pipes from a small kettle, set in an arch some thirty feet distant." We have given in the New England Farmer, No. 5, p. 39, the mode of heating liquids by steam, adopted by Count Rumford, which was by conducting steam to the liquid which it is required to heat. We have in other modes described, by which the steam entered the outside of the vessels which contained the liquid to be heated. These modes may be useful, in many cases, where boiling or heating is the object, without regard to evaporation. When steam is introduced into a liquid, it is condensed, imparts caloric to the liquid, but gives no more heat than what it had previously received from the fire which gave it the state of steam. In condensing, however, or changing it from a gaseous to a liquid form, it increases the quantity of the liquid to which it imparts its caloric, and

probably adds as much to the liquid by its condensation, as it causes it to be diminished by evaporation. We are inclined, therefore, to believe, where evaporation is the object, it may be as well to apply the fire directly to the vessel containing the liquor to be evaporated, as to make use of the agency of steam. In this, however, we may be in an error, and if so should be happy to be corrected.

The communication of Mr. Pickering for this day's paper, and that of Mr. Kenrick in our paper No. 30, will, we doubt not, receive the attention which their importance merits. We do not regret the circumstance of those gentlemen differing in opinion upon some topics. By friendly collisions of this kind, the truth is often elicited.

A communication from our good friend in Stockport, Pa. was duly received, and would have been published before this time, had not the Editor wished to accompany its publication with some remarks which he has not yet found leisure to complete. We hope neither that gentleman, nor any other, who may oblige us with their observations, will consider their favors as neglected or ungratefully received, when circumstances may have caused a delay in their publication.

FARMER SUMMARY OF NEWS.

CONGRESS adjourned on Monday last.—An abstract of their last weeks proceedings will be given in our next.

FOREIGN.—A letter from an American officer, now in the Mediterranean says: "I observe a vast deal in the public prints, relative to Greek affairs, and a pretty general indisposition to credit the accounts of their success. But whatever may be said to the contrary by the 'Holy Alliance' and their advocates, I know that the cause is going on gloriously, and if they are not interfered with, there is every rational ground for believing that they will succeed, if not to their immediate and full emancipation, at least to the great betterment of their condition."

An American gentleman, Mr. Gaillard, from Charleston, was butchered in a most shocking manner, not long since in Havana, by pirates, for having observed "that Commodore Porter would soon be among them."

DOMESTIC.—Thursday, the 3d of April, is to be observed as a day of fasting, humiliation and prayer in Massachusetts and Maine.

Fire.—On Thursday night an unfinished brick house in Purchase St. was destroyed by fire. Owing to the spirited exertions of the engine-men and citizens, and plenty of water, the other houses in the block were preserved.

On the 1st inst. a dwelling house in Hartford, Conn. owned and occupied by Mr. Uriah Cadwell, was destroyed by fire, together with nearly all his furniture and provisions.

A house in Thompson, Conn. occupied by a Mr. Lee, was lately burnt, and Mrs. Lee perished in the flames. A medical writer, says the N. J. Eagle, attributes the great increase of Apoplexy to the wearing of cravats, and endeavors to prove his theory by the observation, that women who generally go with their necks uncovered, are rarely subject to this disease.

Four animals of the Lynx species were killed in Craftsbury, Vt. in the month of January. Of one it is remarked, that the whole of its intestines, when extended to their full length, measured but six feet two inches in length.

Appropriate present to John Q. Adams.—A few days since, an enormous Cod Fish, weighing eighty-four pounds, was caught by some Marblehead Fishermen.—On its being landed, it was at once agreed to present it to JOHN QUINCY ADAMS, as an appropriate testimonial of the gratitude of Fishermen for his most able and triumphant defence of the American right to the Fisheries, in the negotiations of Ghent. The fish was accordingly frozen with great care, in order to preserve it, incased in a box of ice, and transmitted, with a letter from the donors, to the Hon. Secretary of State.

Essex Register.

The Anniversary of the 8th of Jan. was celebrated with much spirit at Nashville.—Gen. Jackson was present at the celebration, and from the complexion of the toasts, we should think (says the Boston Gazette) he has a strong disposition to climb the Presidential ladder.

Twelve millions four hundred and seventy eight thousand Cigars were imported the last year into the United States. It is calculated, says the Philadelphia Democratic Press, that the value of all sorts of cigars consumed in the United States in one year, is about five millions of dollars.

A woman in New-York, aged 109 years, while on her death-bed, acknowledged that eighty one years ago, she strangled an infant child.

A New-York paper says, "The effect of the pressure of the Branch upon the local Banks is too serious to be named!"

PRICES OF COUNTRY PRODUCE, &c.

[Revised and corrected every Friday.]

		FROM	TO
		D. C.	D. C.
ASHES, pot, 1st qual.	ton.	145 00	150 00
" pearl do.		155 00	156 00
BEANS, white,	bush	90	1 00
BEEF, mess, 200 cwt.	bbl.	9 00	9 50
" carg, No. 1.		8 00	8 50
" " No. 2.		6 00	6 50
BUTTER, inspect. 1st qual.	lb.	14	15
" " 2d qual.		12	13
" small kegs, family,		16	17
CHEESE, new milk		7	9
FLAX		8	9
FLAX SEED	bush	90	1 00
FLOUR, Baltimore, superfine,	bbl.	7 25	7 50
" Genesee		7 50	
" Rye, best		4 50	5 00
GRAIN, Rye	bush	80	85
" Corn		72	75
" Barley		68	70
" Oats		44	47
HOGS' LARD, 1st sort	lb.	9	
HOPS, No. 1.		10	12
LIME,	cask	1 25	1 50
OIL, Linseed, American	gal.	65	70
PLASTER PARIS	ton.	3 00	3 25
PORK, Navy Mess	bbl.	12 00	12 50
" Bone Middlings		14 50	15 00
" Carg, No. 1.		12 00	12 50
" Carg, No. 2.		11 00	11 50
SEEDS, Herd's Grass	bush	2 25	2 50
" Clover	lb.	8	9
WOOL, Merino, full blood, washed		50	60
" do. do. unwashed		40	45
" do. 3-4 washed		45	47
" do. 1-2 do.		40	45
" Native		35	40
" Pulled, Lamb's, 1st sort		55	60
" do. Spinning, 1st sort		47	50

PROVISION MARKET.

BEEF, best pieces	lb.	8	10
PORK, fresh		5	6
VEAL,		6	8
MUTTON,		3	7
POULTRY,		7	9
BUTTER, keg & tub		16	17
" lump, best		20	22
EGGS,	doz.	20	24
MEAL, Rye,	bush	90	
" Indian,		80	85
POTATOES,		37	
CIDER, liquor,	bbl.	1 50	
HAY, best,	ton.	20 00	24 00

STRAW CUTTERS:

One of the Farmers best Implements, this season.

ON hand and for sale at the AGRICULTURAL ESTABLISHMENT, No. 20, Merchant's Row—Hand and Machine STRAW CUTTERS, some very low prices.

One ENGLISH MACHINE, which will be sold for half the cost and charges.

Several HAND MACHINES, suitable for private stables. Boston, March 1.

* See N. E. Farmer, No. 23, p. 182.

A MORAL LESSON.

Listen, young farmer, to the moral muse,
And catch the useful lessons of her song.
Be frugal and be blest; frugality
Will give thee competence; thy gains are small,
Too small to bear profusion's wasteful hand.
Make temperance thy companion; so shall health
Sit on thy brow, and brace thy vigorous frame
To every useful work. And if to those
Thou happily shalt join one virtue more,
The love of industry, the glowing joy
Felt from each new improvement, then fair peace
With modest neatness in her decent garb,
Shall walk around thy dwelling; while the great,
Tire with the vast fatigue of doing nought,
Fill'd with the ails, which luxury await,
Impatient curse the dilatory day,
And look with envy on thy happier state.

Then banish from thy fields the loiterer sloth,
Nor listen to the voice of thoughtless ease.
Him sordidness and penury surround,
Beneath whose lazy hand the farm runs wild;
Whose heart nor feels the joy improvement gives,
Nor leaden eye the beauties that arise
From labor sees. Accumulated filth
Annoys his crowded steps; even at his door
A yellow mucus from the dunghill stands
In squalid pools; his buildings unrepair'd,
To ruin rush precipitate; his fields
Disorder governs, and licentious weeds
Spring up uncheck'd: the nettle and the dock,
Wormwood and thistles, in their season rise,
And deadly nightshade spreads his poison round.
Ah! wretched he! if chance his wandering child,
By hunger prompted, pluck th' alluring fruit
Benumbing stupor creeps upon his brain;
Wild grinning laughter soon to this succeeds;
Strange madness then, and death in hideous form.
Mysterious Providence! ah why conceal'd
In such a tempting form, should poisons lurk;
Ah, why so near the paths of innocents
Should spring their bane? But thou alone art wise.

Activity, industry and talents may advance a man to high standing in the community, but prudence and circumspection alone can preserve him in such station. Genius, without prudence, is often a curse to its possessor:

"For many a man, who has much wit,
Needs twice as much to govern it."

Still however, genius is a blessing, and talents are desirable, although their misapplication may ruin a man. No one in his senses would prefer a dull to a sharp tool for fear of cutting his finger; nor should a person of feeble intellect be preferred to another of great mental powers, because the latter by misdirecting his energies may do the most mischief.

No man was ever a knave unless he was also in some degree a fool. Indeed knavery is a compound quality, consisting of folly and low cunning. A man who has a clear head has generally an honest heart; for he must perceive that honesty is not only a duty, enjoined by the laws of God and man, but is likewise the best policy.

It is observed by Hume in his description of the Anglo-Saxons that "Whatever we may imagine concerning the usual truth and sincerity of men who live in a rude and barbarous state, there is much more falsehood among them than among civilized nations."

Notions.—Plants which were once held in dread by mankind, are now used, and found not only innoxious, but of all things serviceable;—whilst those which we now disregard, as at best indifferent, were in times past considered nutritious, pleasant and possessed of countless virtues. We all of us now reprobate the use of quasha by the brewers, and proclaim that nothing but hops is wholesome or pleasant; but we believe that there are brewers now living, who remember when hops were forbidden by law, and the use of them in the brewery held in great disapprobation. Gerard states, that in his day potatoes were eaten sopped in wine; that they were made into delicious conserves and restorative sweet meats; and others he tells us "to give them the greater grace in eating do boil them with prunes, and so eat them." The Queen of James I. considered these such a delicacy, that she had them supplied to her table, but in small quantities, the price being so high as a shilling a pound. But when it was endeavored to introduce this root as a food among the poor, although it was a delicacy of kings, the people declared it a narcotic, a poisonous and mischievous root, flatulent, and causing the leprosy and dysentery.—*European Magazine.*

Glue from Leather.—It is generally thought that the process of tanning renders leather exceedingly insoluble. Means, however, have been found to overcome that insolubility, and to form a glue exceedingly well adapted to the purpose for which it has been used; namely, that of making the *black paper cases*, so much used for a great variety of purposes;—as it not only forms the cement by which they are glued together, but also in consequence of the gallic acid contained in it strikes a black color, by the application of a solution of sulphate of iron (green vitriol, or copperas) to the surfaces of the articles; and lastly serves to varnish the cases.

The process for making this glue is as follows:—Boil the scraps or cuttings of thin tanned leather; such as the upper leathers of boots, shoes, &c. are made of, in stale urine, until they become softened, and will stretch and contract when pulled and let go again, in the manner of India rubber; they are then to be washed in clean water, and boiled in water until dissolved to a proper consistence for use.

Remedy for sore Eyes.—I have lately seen an application for sore eyes rapid in its good effects and so simple and cheap that the poor and ignorant can obtain it. Take small sticks of sassafras, split in fine pieces—put them in a vessel with cold fresh spring water—they impart a glutinous matter to the water—wash sore eyes in this liquid, which cures them without smart or heat.—*American Farmer.*

CHARLES RAWLEY.

One beautiful spring morning, shortly after I came to Green Lane, I took a ride round the neighborhood to return the visits of my new acquaintances, and to say howd'ye do to the many new faces I was in the midst of. After making several calls I arrived at a neat looking Farm-house, whose tenant I had taken a glass of cider with the day before, and who I learned was a young man of promising character.

I was struck as soon as I entered on the place with the business-like appearance of everything. The fences were all in good order, the trees looked thrifty, the winter grain well forward, the cattle in prime keeping; and the place well stocked with poultry, of every kind, fine growing pigs, and a clever flock of sheep. At the barn I observed several persons busily employed, and so stepped down there; when I found Charles Rawley himself, in his shirt sleeves working like a lusty fellow, and his boys round him as busy as himself. He invited me to walk to the house and I did so; and the arrangement of things within corresponded well with that without.

Although it was not much after the ordinary breakfast hour; every thing like cooking or eating had disappeared, there was not so much as a crumb on the floor; the very cat had had her fill, and sat washing her face in the corner; the chairs were all in their places; the table looked newly polished, and the domestic carpet did not bear the print of a single foot-step. By the prettiest sight was the good woman and her two eldest daughters at the spinning-wheels; the little girls did not appear to be, either of them more than 9 or 10; yet they seemed quite mistresses of their business, and worked smart as their mother. With their flaxen hair neatly combed up, their rosy faces fresh and clean, and their linsey dresses neat and tidy they bespoke a tribute of praise to their excellent mother, which I could not help avail myself even of that early opportunity of paying.

We read the truest lessons of character in small things; and when Charles asked his wife for the decanter of brandy, I sat it down as a good sign; it was an article with which he was not very familiar; and when afterwards he wanted to pay me a small sum of money I saw some choice seed I had promised him, and we went to the good woman for the money, I set it down as another. It's always a good sign when husband and wife keep the family purse common, for it shows that they both know how to keep it well—a matter of the first consequence.

I left Charles Rawley's that morning, delighted with my visit, and when I returned home noted in my Port Folio, "Rawley will be rich in a dozen years." It will be twelve years next May since I made this entry and he is no master of a farm of 250 acres of fine land, and has money out at interest, though at that time probably fifteen hundred dollars would have bought him out completely; so certainly do industry, frugality and good management prosper.—*Emporium.*

Pun Legal.—A short time before the removal of the Irish Courts to their present splendid building, one of the walls of the old court house was in a very tottering condition. While a law argument was going on one day in full court this assumed so dangerous an appearance as to check the proceedings for a short time: during which a young wag at the bar, addressed the court, saying "My Lord, I move for an *injunction to stay the proceedings of that wall.*" "There is no need (replied Curran) a *temporary bar* will be sufficient."

Dr. R. maintained that poverty was a virtue. "That," said Mr. Canning, "is literally making a virtue of necessity."

NEW ENGLAND FARMER.

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Vol. I.

BOSTON, SATURDAY, MARCH 15, 1823.

No. 33.

DISEASES OF CATTLE.

SELECTED AND COMPILED FROM THE BEST AUTHORS,
BY THE EDITOR.

Loss of Joint Oil, or Synovia.

Wounds, or punctures of the joints, often penetrate so deep as to pierce through the tendons and ligaments, occasioning a loss or discharge of the natural secretion of the joint, viz. oil, or synovia; the same accident may happen from any injury exciting inflammation, and inflammation passing on till it produces an abscess into the joint. This disease is always a alarming one, and the principle of cure is to reduce the process of healing as quickly as possible, by exciting active inflammation; this is to be done after the first effects of the injury are subsided, in consequence of bleeding, purgatives and fomentation, in the usual manner, and by applying the volatile blister to the joint, composed of Spanish flies, in powder, two dr. spirits of ammonia, four oz.; at the same time the orifice is to be plugged with a tent, and dressed in the following composition:

Sweet spirits of Nitre 3 dr.
Butter of antimony, and extract
of lead, each 2 dr.

The blister and caustic may be occasionally repeated; the mixture every twenty-four hours, till the effusion of joint oil is completely stopped, then the following balsam may be applied once or twice a day, in order to heal up the wound: Tincture of myrrh 2 oz.
Blue vitriol water ½ oz.

The vitriol water may be made by dissolving drachms of blue vitriol, in powder, in a pint of hot water; the balsam to be well shaken before previous to using it. The blister is to be well rubbed on the joint, till a plentiful discharge takes place from the surface, when it ceases to be no longer requisite. By this treatment the cure is generally effected, unless when the tendons are materially injured along with the joint, and then any plan of cure will prove ineffectual. When weakness of the joint prevails, after the running of the joint-oil is stopped, which is generally the case, a plaster of gum, &c. as recommended in page 249, should be applied.—*Skellie's Treatise.*

Mange.

This is a cutaneous disease, which is very contagious, for so many cows as come in contact with one laboring under the disorder will be sure to catch it. Its symptoms are, a scabby external part of the body, which is attended with an itching. This the animal shows, by having a continual inclination to scratch the affected part or parts against any thing it can get at. Some say that it is caused by the bite of animalculæ, which burrows in the skin.

It generally attacks those animals which are in flesh, and have been fed on poor food.

The first step in order to cure this disease is to take a currycomb and gently curry off the scales, in order that the medicine may have the full effect. After this the following applications are to be rubbed on the parts affected, which

may be repeated every three or four days till a cure is effected; and it seldom requires more than two or three applications:

Flowers of sulphur 1 lb.
Spirits of turpentine ½ pt.
Train oil, enough to make it into a thin liquid.

Horn Distemper.

This is a disease which has its seat in the horns. Cows are more subject to it than oxen, and it does not attack bulls; and steers and heifers, under three years old, it is said, are not subject to it. The distemper causes the pith of the horn to be gradually consumed. It is most commonly confined to one horn only, but sometimes appears in both. It is occasioned by poor keeping, by which the blood becomes thin and reduced, and does not circulate properly in the extremities. It is discovered by the sluggishness of the animal, loss of appetite, a coldness of the horn, and a disposition to lie down.

To cure the disease, the horn should be bored with a nail gimblet in such a manner as to effect the discharge of the matter which has become purulent. The hollow part should be well cleansed by vinegar in which a portion of salt has been dissolved, to be injected by a syringe. Dr. Deane recommended the injection of a mixture of rum and honey, with myrrh and aloes. Stimulating medicines, such as ginger, spices, &c. have been given, but these are injurious until the bowels have been evacuated. Laxatives, however, such as sulphur, glauber's salts, &c. prove serviceable; and after the bowels are evacuated, and the horn well cleansed, good keeping will be necessary to effect the cure.

Tail Sickness.

"This is a distemper attended with weakness and sluggishness to which horned cattle are liable in the spring. The end of the tail becomes hollow, and relaxed, but not, as some have asserted, destitute of feeling. A cure is easily effected by the amputation of a small piece of the tail, which will be attended with a discharge of some blood. But when the tail is but little affected, and near to the end, a slit of an inch or an inch and an half, in the end of the tail, is preferable to amputation."

Ulcers.

An ulcer is "a solution of the soft part of an animal body, together with the skin." The symptoms of an ulcer, which is in a way to be healed, are granulations, or little eminences, arising from the surface of a florid or reddish color, small in size, and pointed at the top; the discharge, white and thick. This will generally be effected by giving the animal perfect rest, using mild and simple ointments, such as are composed of oil and bees' wax, or hog's lard, which is not rancid. Turpentine and lard melted together make a good ointment. The following has likewise been recommended:

Goose grease 1 lb.
Hog's lard 2 lb.
Red Lead 3 oz.
Pulverized alum 1 lb.

The goose grease and lard are to be melted over a slow fire; the lead is then to be added in fine powder, which is to be constantly stirred till it becomes cold, in order that it may be well incorporated. A little sulphur and nitre may be given by way of alterative.

If the ulcer assumes an inflamed state, and the surface is covered with a brown transparent matter, the following fomentation will prove useful.

Camomile flowers ½ lb.
Wormwood, a large handful.
Bay and Juniper berries, each 4 oz.
Beer or ale grounds, emptins or yeast 6 qts.
Vinegar 1 qt.

The whole to be boiled for a quarter of an hour. Leeches applied to the edges of the ulcer will be serviceable, and purges of glauber salts or epsom salts.

If the ulcer becomes black and fetid, with a cessation of every inflammatory symptom, and there appears to be danger of mortification, give an ounce of Peruvian bark every four hours; a little opium may be joined with it. Fomentation with hot vinegar will be found useful. When the parts suppurate, cut off the dead matter with a knife, and afterwards dress with some simple ointment.

If there is too rapid a growth of fungous matter, or what is called proud flesh, it may be well to rub in a small quantity of the following caustic over the whole surface of the preternatural growth, with a spatula.

Soft soap 1 oz.
Arsenic ½ oz.
Oil of vitriol ½ oz.
Spirits of lavender ½ dr.

The soap and arsenic to be mixed first, and then the vitriol added by degrees. The whole may then be covered with the digestive ointment of tar and turpentine, prepared as mentioned in No. 29, page 225, 2d col. By these means part of the growth will become dead in a few days, which may be cut or pared off, and the same caustic application made to the remaining part till the whole is destroyed.

In ulcers in fleshy parts there is often a preternatural callous, or hardened growth. This must be destroyed before a cure can be completed. In this case, the before mentioned caustic must be applied, but used with caution. The hard part is to be rubbed with it for half the extent of the swelling, beginning at the orifice. The dead parts are then to be cut away every two or three days, and the application is to be repeated till the cure is complete.

We have now concluded, for the present, our observations on the diseases of Neat Cattle. It is probable we may have omitted to take notice of some disorders to which they may be subjected; and, if so, should be glad to supply the defect; and would be much obliged to any friends or correspondents who may be so good as to point out any errors which we may have committed, either through inadvertency or misinformation. Any remarks which may relate to disorders peculiar to our climate, will be particularly acceptable.

The doses prescribed are intended for cows, which have nearly or altogether acquired their growth. Oxen or bullocks having stronger constitutions than cows, will be more subject to inflammatory diseases, especially when exposed to labor. The remedies heretofore recommended, must therefore be increased in quantity when applied to full grown males. Dr. Skellett says that the bullock must be bled and purged, &c. a third more than the cow, which will be a proper general rule to be observed in all his diseases. This rule, however, must be modified, like every other general rule, according to the circumstances of the case, and the judgment of the practitioner.

Calves are subject to many of the diseases of cows, and in most cases their treatment must be the same, except that the means employed, such as bleeding, purging, &c. should be diminished about one third of what has been directed for the cow; making discretionary allowance for the difference of age, size, and condition of the animals.

ORIGINAL COMMUNICATIONS.

FOR THE NEW ENGLAND FARMER.

MR. EDITOR—I have been a reader of your paper ever since its commencement, and I now begin to think it is high time for me to make a communication to you, which I believe will be beneficial to my agricultural brethren, and if you are of the same opinion, you will please to publish it, or such part of it, as you see cause.

The subject which I propose, is that of the more extensive cultivation of Oats. Various are the kinds of oats. The Barley or Scotch oats, so called, I have cultivated, but not with very great success; their weight is generally about 42 lbs. per bushel.—I have seldom been able to raise more than from 20 to 25 bushels per acre. The black oats I have cultivated; their weight is about 36 lbs. per bushel, and produce about as many bushels per acre as the barley or Scotch oats. The greatest objection I have to the barley or Scotch oats, is, that they must be harvested suddenly after they are fit, in order to prevent waste. The common oats which are raised, I consider preferable. My average crop of late years has been from 40 to 50 bushels per acre, and in one instance 65 bushels per acre.

I make oats principally, and generally speaking, my first crop in the line of a rotation of crops. I break up the piece intended for this crop in the fall, if possible, and in the spring cross plough and harrow thoroughly before I sow my grain; then harrow again until the turf is well pulverized; then sow ten bushels of clover seed chaff per acre, and roll it in. As soon as the grain is harvested, and the young clover has received its growth, I plough it in. This clover with the stubble, is about equal to a common dressing of compost manure. In the fall plough, in the spring I cross plough, after taking from my compost heap thirty loads per acre, which are carefully spread. The lot then being well harrowed and furrowed is ready for planting, either with corn, potatoes, or turnips. This is my second crop. For my third crop I again sow wheat, peas, flax, oats, &c. and stock the lot down with herds grass and red top, which I believe make the best of hay. I let the lot remain in grass three years. Thus you will observe I till three years, and mow or pas-

ture three years. My first and third crop is principally oats.

I have frequently been told that oats and corn were very impoverishing crops; but I find no difficulty in enriching my land as above stated. Ten years ago my average crop of corn was from 30 to 40 bushels per acre. But in passing over a lot the second time which was managed as above in the summer of 1821, I had the satisfaction of harvesting 96 bushels of corn per acre, and received the Society's premium. My other crops have advanced in about the same proportion.

The inquiry will naturally be made, what I do with my oats? Well, sir, after I have reserved for my stock and for seed, I take the remainder to my mill and manufacture them into flour and meal. It will be understood that the oats are kiln dried, then hulled about as clean as rice, then ground, and bolted or sifted, as the case may be. That which I bolt is calculated to be mixed with wheat flour for bread; in which case the oat flour being kiln dried, must be scalded before it is mixed with the wheat flour, otherwise the bread will be too dry. Good oat flour, prepared as above, mixed with wheat flour, half and half, will make as light and pleasant bread as common country wheat flour, and it will trouble good judges of bread to tell it from clear flour bread. Again, it is excellent to make butter-cake, by the Yankees called slapjacks. The oat meal is calculated for puddings, and is a substitute for rye meal to mix with corn meal for bread, or with rye meal for bread. In either case the oat meal must be scalded before it is mixed.

Thus, after supplying my family, the remainder is for market. The oat flour I have generally sold in Boston and New York to the druggists. The meal is also purchased by the druggists. I have generally sold them oat flour for from four to five dollars per hundred, and the meal from three fifty to four fifty, which is, by them, retailed as medicine, from twelve to twenty cents per pound.

The meal is frequently bought by foreigners, by the barrel or hundred, for family use. The sale of oat meal is at present rather limited; the reason is that but very few people in this country, save foreigners, are acquainted with the use of it, except for medicine. Foreigners generally prefer oat meal to flour. I really hope both for our health, and the interest of agriculture, that the time is not far distant, when oat flour and meal will be used in every family for food.

Much may be said as to the value of this article as medicine, as well as for food. It has been a common article for food in Scotland and Ireland for many years. Seldom, if ever, an English, Scotch, or Irish vessel sailed without a supply of oat meal; and I may say it would be well for every commander of an American vessel, in making up his order for ship stores, to include a sufficient quantity of oat meal or flour for his voyage.

As I am one of the homespun family, and wish for information, I hope these few remarks will draw something from more able writers.

I will, when I have leisure, inform the public, through your paper, more particularly, as to the process of hulling oats and preparing the flour and meal, as well as to the construction of the mill and kiln. HENRY STEVENS.

Barnet, Vermont, Feb. 1823.

FOR THE NEW ENGLAND FARMER.

MR. EDITOR—Having leisure by reason of a and infirmity to read papers and books, and finding you wish for communications from experienced farmers, I am induced to write. If will communicate is of any use you are welcome to it, if not, make waste paper of it.

ENGLISH TURNIPS.

About the year 1788, or 1789, reading the English mode of ploughing for wheat follow the morning early, so as to plough in the day I concluded to raise turnips in that mode. I ploughed a yard seven or eight times, in which I had raised turnips the year before. The land was very poor, and had borne a worse crop. I sowed it the 24th of July without any manure of any kind, or enriching the soil in any way but by simply ploughing in the dews. The yield was about three rods square. I had a very large crop. I continued ploughing and sowing that piece for seven years without manure, until in the season every year than in the year preceding, till last year, when I sowed on the 20th of August, and had an excellent crop of sweet flavored turnips. I generally plough yearly, from eight to twelve times before sowing. I have raised turnips on a larger scale since, and find them an excellent food for cattle. Yours, &c. WALLIS LITTLE

Townsend, March 4, 1823.

REMARKS BY THE EDITOR.

MR. Little does not inform us what sort of soil he raised his turnips on. A heavy loam, or a soil on which clay is found in any considerable quantity, can hardly be ploughed too much. But we have some doubt whether a sandy soil is benefited by very frequent ploughing. A practical as well as scientific farmer told the Editor that he had attempted to improve a worn out field, with a sandy soil, by frequent ploughings when the dew was on, but did not succeed. A scorching ray of the sun appeared to rob the soil of its fertilizing particles, and as he expressed it, the land he ploughed his land the poorer it grew. The story of Tull, an old English writer of celebrity, who thought that frequent ploughing might, in all cases, serve as a substitute for manure, has been found not to answer. Sir John Sinclair has the following observations on the subject:

"The management of sandy land, according to the system adopted by the celebrated Duckett, has been strongly recommended by an eminent author, as founded on three principles: 1. Ploughing very deep to a due degree of moisture was thus preserved in light land, by means of which his crops were flourishing in seasons of drought, which destroyed those of his neighbors: 2. Ploughing seldom, but effectually, trench plough, or what he called a skim-coulter plough, with which he buried the weeds that grew on the surface; he has been known to put in seven crops only four ploughings: and 3. Occasionally raising a crop of turnips the same season after a crop of wheat or of pulse."*

It should seem to be the modern practice of husbandmen in Great Britain, when they cultivate sandy soil, to give one deep ploughing in 12 or 18 months, followed by shallow tillage afterwards, with what are called flatters, scufflers, &c. instruments which stir the soil to a small depth only.† We know that our cultivators are not apt to make too much use of the plough, and we submit it to consideration whether some kind of soil composed of his turnip yard, which he enriches without manure, by ploughing only.

* Code of Agriculture, p. 15.

† Ibid, p. 3.

FOR THE NEW ENGLAND FARMER.

MR. EDITOR—I have known many farmers lose cattle, sheep and hogs, by their loose

looked with roots and apples, and other similar articles, and have lost them myself, till I found the remedy below.

When an animal is choked, take a quart of water, a little more than milk warm, and put in a good large spoonful of soft soap, and stir well, and turn it down the creature's throat, about one third at a time. I never knew it fail in making them throw it up. It causes the throat to be slippery, and the root is then easily dislodged.

W. LITTLE.

TO THE EDITOR OF THE NEW ENGLAND FARMER.

Agriculture is as much interested on the improvement of Machinery as the breed of Cattle, particularly mills, and other labor saving water powers.

I have been, through life, acquainted with mills; made many observations and experiments, being frequently employed to project and draught them for practical millwrights. Let with a very essential part of correct millwrighting, with all my study and observations, I am yet ignorant, or in other words, incompetent to calculate; that is, to calculate correctly the number of cubic feet of water that will run in a mill race of any given time, dimensions, and descent per rod.

Or, suppose I had a mill race dug with geometrical exactness, twenty rods long, with a fall or descent of one inch in each rod, two feet wide in the bottom and six feet on the top, and three feet deep at the upper end—how many cubic feet of water would such a race discharge in a minute, or any given time?

Or in other words, suppose that on such a race I had three water wheels, one requiring one cubic foot of water in a given time, the others six and four feet in the same time—how deep must the water be turned into that race to supply the one, two or three wheels?

These are questions that in the prime of life I never could find correct rules to answer; and from many experiments on a long large mill race I fully proved that the deeper the water in the race the swifter it ran—that it ran swifter on the top than on the bottom—that it ran swifter in the middle than near the sides; that imputed to friction.

We know that the whole power of water is its specific gravity. That the particles of water are globular, and its velocity is occasioned by rolling down an inclined plane, similar to what basket balls would do; that a cubic foot of water weighs 62½ lbs. Therefore by the rules of algebra there appears more given equations than unknown quantities, and by that rule we are limited for an answer. Yet from near fifty years study, I have been unable to discover a correct rule for such calculations.

I now use the freedom to appeal to the learned and ingenious gentlemen who have been engaged in canals in the Eastern States, to publish such a desired theorem in thy useful paper. And in return, life and health permitting, I may perhaps publish a theorem of equal value. It is well known to most people that there is a certain circular motion in which a bucket of water may be swung bottom upwards, and none drop out; that is, a certain motion in nature wherein the centrifugal force balances gravitation. It is the same motion in the laws of gravitation that retains the planets in their orbits—a law so absolute that every particle of

matter on our globe is obedient to it; and that is the true motion for every wheel in a mill, and the stone also to run so that the centrifugal force may balance the friction on the gudgeons, and prevent what millwrights call back-lacing.

My theorem, which is in algebraic expressions, may perhaps be made intelligible in arithmetic, and I will publish it in return for the one that I have requested.

SAMUEL PRESTON.

Stockport, Pa. Feb. 1823.

REMARKS BY THE EDITOR.

Our correspondent has, in the above, given us some ideas relative to one of the most difficult and perplexing branches of mathematical and mechanical philosophy. The theory of the motion of rivers and canals, the doctrines of hydraulics, hydrostatics, and the application of water power to turn the machinery of mills, is but little understood, in comparison to the advances which have been made in other sciences of less importance. "We have," says Professor Robinson, "merely skimmed over a few common notions concerning the motions of water; and mathematicians of the first order seem to have contented themselves with such views as allowed them to entertain themselves with elegant applications of calculus. This, however, has not been their fault. They rarely had an opportunity of doing more for want of a knowledge of facts. They have made excellent use of the few which has been given them; but it required much labor, great variety of opportunity, and great expense, to learn the multiplicity of things which are combined even in the simplest cases of water in motion. Although the first geniuses in Europe have, for this century past, turned much of their attention to this subject, we are almost ignorant of the general laws which may be observed in motions of fluids. Who can pretend to say what is the velocity of a river of which you tell him the breadth, the depth, and the declivity? Who can say what swell will be produced in different parts of its course, if a dam or weir of given dimensions be made in it, or a bridge thrown across it? or how much its waters will be raised by turning another stream into it, or sunk, by taking off a branch to drive a mill?" This eminent writer confesses that he knows of no train of reasoning, by which he can connect the general laws of hydrostatics with the phenomena of the uniform motion of the water of a river or open stream, which can derive its motion only from the slope of its surface, and the modifications of this motion, or its velocity only from the width and depth of the stream. There are circumstances, he observes, in substance, which distinguish a portion of a river from a vessel of the same size and shape, in which the water is at rest. In both, gravity is the sole cause of pressure; but there must be some circumstance, peculiar to running waters, which modifies the exertion of the active principle, and which, when discovered, must be the basis of hydraulics.

The velocities of water issuing from orifices at various depths below the surface, are in the square roots of those depths; but this rule, owing to causes not fully explained, will not apply to running streams. The motion in rivers or channels is obstructed by inequalities, which give to the contiguous filaments of the stream transverse motions, which thwart and impede the regular progress of the rest of the stream. These obstructions are most effectual in the beginning of the course of the stream, because the stream being small, has more outside, or a larger proportion of the particles of water, in reference to the whole mass, is exposed to friction against the sides, or banks, of the stream and its bottom. The particles of a liquid move with less friction among themselves, than when in contact with a solid body, although the surface of the latter be as smooth as art can make it.

From the above premises, we believe it would follow that by doubling the quantity of running water in any given trough, pipe or channel, which shall be discharged at the lower extremity adajutage, or out let, in any given time, we more than double the power of such water to drive any kind of machinery. If running wa-

* See Encyclopedia Britannica, Art. River.

ter, which would cover the bottom of a trunk or flume of any given dimensions, inclined in a given angle, one foot deep, would drive to advantage one pair of mill stones of four feet in diameter, by letting in water sufficient to cover the same flume two feet deep, at least three pairs of similar mill-stones might be driven. What millwrights call the head and fall would be increased one foot, or nearly doubled, if the plane on which the water ran was not much inclined, and the friction against the bottom would be but very little, perhaps not any greater. But as we said before, this is a very abstruse subject, and requires more time and thought than we can at present bestow upon it.

We have seen an excellent treatise on the subject of Water Mills, by Mr. Smeaton, an Englishman, a celebrated Engineer, and the person who superintended the building of the Eddystone Light House. We have deferred our notice of Mr. Preston's communication for some time, with a hope of finding that work, which we believe would solve some of his doubts; but have not yet been able to put our hands upon it. We shall make some farther search, and if we should not succeed in obtaining it, shall endeavor to state, from recollection of long standing, some of the maxims it contains; particularly those which relate to the power of small streams to turn machinery; the mode by which such power is best obtained; and the relative velocity to be attended to between the water-wheel which gives motion to mill-stones, and the mill-stones, in order to obtain the greatest power from the stream.

From the Republican Advocate.

Great Crops in Hartford County last season—with their mode of culture.

BARLEY.—Joseph Watson, Jr. raised in Hartford Meadow on one acre of land sixty-three and a half bushels of barley. The land was seldom overflowed. In 1820 it was well manured, planted with corn, and in the fall eighty bushels of corn were taken from the acre. In 1821 it was manured with about fifty loads of manure and four bushels of plaster and some ashes, and again planted with corn. 1st April, 1822, it was ploughed and soon after dragged, and on the 12th of April, it was again ploughed, and sowed on the 15th to barley, four bushels to the acre, well harrowed and stocked with herds grass and clover. The barley was mowed the 25th of July and threshed the first of January.

POTATOES.—The above named gentleman also raised on one acre of meadow land, 503 bushels and 3 quarters. The land was set to Tobacco in 1821, it was ploughed eight inches deep, and on the 26th May, it was furrowed out and planted in continued rows, three feet and eight inches apart, and manured in the rows with thirty loads barn yard manure, ten loads from the hog sty, and three bushels of plaster; thirty bushels of potatoes were planted on the acre and hoed twice with the horse hoe, and dug them the latter part of October.

FLAX.—Mr. George S. Spencer raised from one half acre of land, 199 pounds of well dressed Flax, and six bushels and twenty two quarts clean seed. In the fall of 1821, the land was sowed with wheat, having been previously manured with fifteen loads of yard manure. The winter killed a good part of the wheat. In the spring of 1822, the land was ploughed—it being very mellow, the soil a sandy loam—then dressed with a harrow, and sowed one bushel of the Long Island seed, then harrowed it in, pulled the flax in July, and dressed the same in January and February, 1823.

A letter received from a black man in Hayti, who emigrated there from Rhode Island some time since, speaks in high terms of the prospects in that island for settlers.

REMARKS

ON THE IMPROVEMENT OF CATTLE, &c.

In a letter to Sir John Saunders Sebright, Bart. M. P.
by Mr. John Wilkinson, of Lenton, near Nottingham.

Let each succeeding race employ your care,
Distinguish which to slaughter, which to spare;
Mark well the lineage,—let the purest make,
From purest blood, its just proportions take.

(Continued from page 254.)

With respect to the value of different breeds as milkers only, some persons have attended solely to the quantity of milk given by each cow, while others have had regard only to the quality. But it is certain that this value must depend on the quantity and quality jointly, yielded from a given quantity of food.* By a given quantity of food is to be understood, not merely the same weight, but the same weight of the same kind and quality also; and in any experiment, it ought moreover to be given under similar circumstances. The time too allowed for an experiment of this nature ought to be at least a whole year; because some breeds will give a great quantity of milk just after calving, but will not yield that quantity for any considerable time; while others will not give so great a quantity at first, but will approximate to it much longer. As to the number of the cows, it need by no means be the same in two or more cases of trial; but the proper number for the consumption of the proposed quantity of food. For the question is not, whether the produce of so many of one breed, be more valuable than the produce of the same number of any other; but what will be the value of the produce afforded by a certain quantity of food, when bestowed on the one, compared with the value of the produce afforded by the same quantity of the same kind of food, when bestowed on any other; remaining circumstances being as similar as possible.

In comparing the value of any one breed with the value of any other, in reference to the shambles, it is very evident, that the placing out certain quantities of different kinds to feed, and comparing the increase of weight in each case with the quantity of food consumed, will never determine the question. Because, here the question is not which have paid the best for a certain period, but which have paid the best during the whole course of their lives; the different breeds being killed at that particular age which will give to them respectively the maximum of profit. That there is a certain age which is the most profitable for disposing of one kind; but another age, and far different, the most profitable for another, is a circumstance well known to every practical farmer.—Some breeds cannot easily be made fat till they are three or four years old; while others are capable of being so at any age we may think

proper. I believe the most profitable age for disposing of fat cattle of the improved short horned breed, is from two to three years old, according to circumstances at the time of sale.—In all experiments of this nature, there are many and great difficulties to encounter in order to render the comparisons just; we may, however, proceed with a sufficient degree of accuracy to determine what breeds are unquestionably the best; and the greater excellence has always been yielded to those which arrive at the earliest maturity.

I now come to the descent or lineage of animals; and so vast is the importance of this part of my subject, that I thought I could not do better than notice it in the title page itself. And for the same reason also, I may be allowed to quote your own words, which are so apposite to my present purpose, and so perspicuous in the delineation of the truth you wish to inculcate; a truth which can never be too fully impressed on the minds of those who are engaged in the improvement of stock. They are as follows: "Regard should not only be paid to the qualities apparent in animals selected for breeding, but to those which have prevailed in the race from which they are descended, as they will always show themselves, sooner or later, in the progeny: It is for this reason that we should not breed from an animal, however excellent, unless we can ascertain it to be what is called *well bred*; that is, descended from a race of ancestors, who have, through several generations, possessed, in a high degree, the properties which it is our object to obtain." This observation of yours, sir, appears to me so comprehensive, so clear, and yet at the same time so concise, that I dare not attempt either to add or take from it; I will only endeavor to illustrate it by some familiar example, and as many are more conversant with the color of animals than the excellence of their shapes, it may not be amiss to refer to the former. Suppose, then a number of pure Devon cows to be crossed with a breed of perfectly white bulls; in this case it is probable some of the calves would be perfectly red, others white, and the greater part would partake of these colors jointly. If we were now to take the red heifers produced by this cross, and put them to a Devon bull, it would not be a matter of any great surprise, if some of their progeny, though sprung from red parents, should be perfectly white, and still less, that several should be mixed with this color; though it would not by any means be so probable as in the former instance. And were we thus to proceed through several generations, this white color would be less and less apparent in the breed, but would most probably occasionally shew itself in some individual or other. If on the other hand, we were to breed from pure Devons only, that is from those that have been carefully bred for a great length of time, we should reasonably expect their offspring to be of the same color with the parents themselves; while any deviation from this, would be looked upon as one of those changes, which nature sometimes produces out of the common course of things. And what has here been asserted of color, is equally applicable to peculiarity of form, or quality of flesh.

When a breed is once brought to that degree of perfection it is capable of, the same care

must be used in the continuance, as was shown in the formation itself; or as you have just observed, "what has been produced by a must be continued by the same means." For though animals that are themselves good, and have also been descended from a long race of valuable progenitors, are by no means likely to produce, even in a single instance, a bad offspring; yet I think it will no more be contended, that every animal produced by the same parents, is precisely of the same value, than that the red color in the Devon cattle is precisely of the same shade in each individual, or that the horns of the Lancashire are exactly of the same length. It has already been observed indeed, that there is a *strong* tendency for *like to produce like*, that there is a *slight* tendency to change, and that nature, moreover, sometimes deviates from her common course. If, however, such a deviation takes place, it may be continued; as experience teaches both in the animal and vegetable kingdom. And hence will very clearly follow, the impropriety of keeping a bad animal, on pretence that it is well descended; an error which some Breeders have fallen into, if not in judgment, at least in practice. Hence also it will appear, that this defective kind of animal of which I have been just speaking, is generally produced from some mixture of impure blood, or that the breed has been declining through several generations; in either of which cases it can never be said to be well descended. For, in order that an animal may be well bred, it is not sufficient that we are able to trace it to parents, the most perfect of their kind; but every intermediate gradation ought also to be good. It will appear too, from what has been advanced on the formation, the descent, and continuance of improved stock, that no animal can be depended upon for breeding, but what is in itself good, and is moreover *well bred* in the strictest sense of the words.

It may not be improper to observe, both with respect to the improvement and the decline of breeds, that they are in general gradual, and proceed but slowly through several generations. And hence, it is not at all inconsistent to say that "animals have *at length* been produced very unlike their original stock;" and yet, at the same time, there is a strong tendency for "like to produce like." But this remark respecting the slowness of change, refers to distinct breeds, and also where any particular family is not crossed with others that are much better or much worse of the same kind; nor does it include adventitious circumstances, as pasturage, climate &c. And it is on account of this slowness of procedure, that so many, who have originally engaged in the improvement of stock have been obliged to expend a considerable sum of money before they could obtain any material advantage: while those who have purchased of that stock, when improved, have reaped an immediate, and even a large profit.

With respect to crossing distinct breeds; it may be proper to divide the subject into one or two separate heads. And first, as to what may reasonably be expected from such a union.—Here you remark, sir, that "you do not, by any means, approve of mixing two distinct breeds, with the view of uniting the valuable properties of both." And from what follows, I conclude the import of the words to be, with the view of uniting these properties in the full

* This I think is so obvious, that I need not attempt to explain the fact itself; but only mention after what manner experiments ought to be made. Hence too it very clearly follows, that the determining of what quantity of cream is produced from a given quantity of milk, will never ascertain the relative value of different breeds as milkers. This rule indeed is defective on its own principles, as it will by no means ascertain even the quality; for the cream of some cows is far richer than that of others, and will yield a much greater proportion of butter.

fection, in which they existed separately in each. We have occasionally been amused with such pretensions, yet he who is a careful observer of facts, will scarcely, I think, be inclined to credit them. I have seen much of the nature of crossing, for reasons that I shall afterwards mention, but never yet saw the accomplishment of an object so desirable, as the full attainment of the good properties in each, without any mixture of the bad. Indeed it must be obvious to every man of sense, that there is no reason to expect a perfect union of the former, rather than of the latter. The one are just as likely to be inherited as the other, and for the very same reason. The thing generally to be expected from mixing the breeds of animals, possessing properties differing in degree, in such union of those properties in the progeny, as they may be greater than in the ancestry on the one side, but less than in that of the other; though it is also true, as you have observed, and as I have before hinted, that the offspring will sometimes nearly resemble one parent only. In crossing the cart mare with a good horse, no man expects to obtain from the produce, the strength of the former, with the speed of the latter; but an animal, that is swifter than the cart horse, yet incapable of drawing great a burthen. It does not follow, however, that no cross can be useful; it may be very useful so. For instance, there are many situations, which will readily suggest themselves to the mind, where an animal with less speed, or less strength, than such a one as might reasonably be expected from the cross in the foregoing example, would by no means be so useful; and yet, where more of either speed or strength, would be almost, if not altogether unnecessary. Again, it occasionally happens, that the breed of cattle which is possessed of the greatest excellence, may be too large for the sustenance of a particular situation; and yet a cross from these might obtain a very considerable advantage. Or a breed, which is unprofitable on the whole, is sometimes kept for the sake of a particular quality, which it possesses to so high a degree, that it would scarcely be the worse, if this quality were somewhat diminished. And this I think is the case with the downy cow; a breed which is kept by some of the nobility and gentry, entirely on account of the richness of the cream; but yet, the quantity of milk afforded by them is so small, as to make them extremely unprofitable, even as milkers. I have frequently known this breed to be crossed however by a well-bred short horned bull; the produce are generally much better milkers than the Alderneys; are more beautiful in their appearance, as not being so heavily boned; and frequently come to a very considerable weight. It will be inferred from what has been already said, and it is an inference which I have seen supported by numerous examples; that where one breed is inferior to another in each individual point, the worse will generally be improved by the better, not partially, but altogether. But where distinct breeds possess their several advantages in different ways, to expect a full and complete union of the good qualities of each, without any mixture of the bad, is to expect a result, contrary to the whole analogy of nature.

I shall inquire secondly, whether a cross from two distinct breeds can be obtained and continu-

ed, so as to unite in almost an equal proportion, the properties of both; and I am fully of opinion that this can be accomplished. The former part of the question has, I think, been already answered: and I have seen the latter effected between the long and short horned cattle. In this neighborhood there were many dairies of long horned cows, descended from the stock of the late Mr. Bakewell; and it was not at all surprising, that the possessors of such stock should be much prejudiced in their favor, on account of the eminence of so great a breeder. When however the improved short horned cattle began to make such rapid strides as they did about thirty years ago; many were willing to try a cross from them, but were not willing to proceed further for the present. This cross being extremely approved of, they rejected such as inclined too much after the one or the other; and continuing to breed from those that partook of the mean, a breed, usually called half horned ones, was at length established; as well known by their particular characteristics, as either of the former.

There is another mode of crossing, which has frequently been attended with the greatest advantage for the improvement of inferior breeds; which is, by crossing the females of the worse with the males of the better, and their produce again in the same manner, through several succeeding generations. By this method, the blood of the former will be more and more exhausted, and a breed at length obtained nearly resembling the latter;* according to the example you have given of Merino—Ryeland Sheep. Since however, the blood of the former, though less and less in each succeeding generation, can never entirely be taken away; it will follow that the value of the produce at any particular time, must depend partly on the value of the females from whence the cross originally descended. I mentioned under the last head, a cross introduced by many in this neighborhood, between the Long and Short Horned Cattle, partaking in nearly an equal proportion of the properties of both. But afterwards, when the improved Short Horns had gained so complete an ascendancy over the Long, and prejudice in favor of the latter, was borne down by experience; this cross, as well as the remaining Long Horned Cows, were put to bulls of the former description, and their produce again, through many generations; the result of which agrees with my present position; namely, that the future crosses, at length, so nearly resembled the Short Horned Cattle, as scarcely to be distinguished from them. The same thing has been effected by crossing Scot's in like manner; and I doubt not, might be from any breeds whatever.

It may be observed generally, and lastly, that no arguments against the system of crossing can be drawn from the nature of the case; because it is highly probable that the various breeds of

* It has before been remarked on the subject of crossing, that though the produce may be expected generally to partake of nearly an equal proportion of the properties of both; yet it not unfrequently happens, that some individuals take very much after one parent, and some to the other. And hence it will follow, that the approximation above mentioned, may be accelerated or retarded by a judicious or improper election in each succeeding cross.

† That crosses are unnatural, seems to be a phrase used by some, without understanding its meaning; and taken up by others without consideration.

Cattle, descended originally from the common stock; and it is absolutely certain, that the original breeds if more than one, could not have been numerous. This, therefore, must necessarily exclude all objections, drawn prior to experience; and experience itself has frequently proved it to be highly beneficial. I have already mentioned a valuable cross, where richness of cream is preferred, between the Alderney Cow and improved Short Horned Bull. I have seen moreover, both Devons, Herefords, Lancashire, and Scots, all crossed with these Bulls, and all producing very valuable Stock. In Lincolnshire also, they are beginning to use them very much. Since indeed the improved Short Horned Cattle have been in such great request, as they have of late, there is scarcely any breed in the kingdom, where individuals have not been crossed with them; or any county into which some of them have not been sent.

But it is proper to remark, that the object of every cross, as well as of every distinct breed, ought to be the attainment of an animal, adapted to that particular situation, for which it is designed: for what may be most advantageous in one situation may be unprofitable in another. And unless this observation be attended to, we can never reasonably look forward to success. For instance, though I consider the improved Short Horned Cattle as by far the best for the country at large, yet there are situations where I should by no means recommend them. I do not think that the mountains of Scotland could be better stocked, than with that hardy, nimble little race, which at present possesses them; while some of their more fertile situations, might very well bear a cross from the breed just mentioned; and some the breed itself. On the other hand, scarcely any greater blessing could befall Ireland, than the introduction of the breed to a considerable extent. For land which is capable of bringing to any tolerable state of condition, a race of such hard, bad fleshed ones, as are generally found to infest that country, would be capable of bringing a better kind to the greatest state of perfection.

Nothing can be more contradictory than what has frequently been advanced by various persons on the whole system of crossing; the understatement of some, seems only to have called forth the overstatement of others; and interest or prejudice have rarely been forgotten. It would have been well, Sir, had some of these gentlemen attended to you on the subject; they would have been directed to an example where the result was likely to be beneficial, and their own reflections might have suggested many more. They would have seen also the idea of the union of the good properties, existing separately in distinct breeds, without any mixture of the bad, discarded on the ground both of reason and experience. In a word, they might have perceived, what they ought reasonably to expect, and what they ought not.

The reason I have been thus diffuse in the present part of the inquiry, is, that prejudice may not prevent a partial improvement, where a full and perfect one cannot be immediately effected; and to save others an expense, which some have unnecessarily incurred. Several gentlemen who have been convinced of the great advantage of improved Short Horned Cattle, have no sooner been in possession of a bull

and one or two heifers, than they have wished for more. On account of the demand however, it has frequently happened, that they have not been able to be supplied with a great number for the present. To remedy this, they have bought up some of the best Short Horned Cows they could meet with in the market, many of which, as might have been expected, have not answered the end proposed. My advice, therefore, to such gentlemen, is rather to cross the Cows they already possess with the improved Short Horned Bull; and gradually to get rid of them and their progeny, as the stock from their thorough-bred heifers continues to increase. By this means a pure breed would shortly be obtained; and, in the meantime, the rest, greatly improved. It would afford, moreover, an opportunity of comparing the improved Short Horned Cattle with the stock that had previously been kept; and conviction arising from experience, is always to be preferred to bare assertion.

It can scarcely be expected, that I should enter particularly into the praises of the improved breed of Short Horned Cattle, as it would have too much the appearance of extolling a race of animals because in one's own possession. I thought it would be better to confine myself to general rules, and to shew by what means the best of each kind may invariably be discovered. I have endeavoured moreover, to make the whole statement plain and simple; to divest it of every appendage which might serve either to disguise or conceal the truth; and to use that order which seemed best calculated to assist both the judgment and the memory. To this end therefore, I have treated, first of all, on the formation and improvement of distinct breeds; then, on the perfection of their shape, and the quality of their flesh; afterwards, on the comparative value of all, considered both as milkers and feeders; and, lastly, on the means to be used for the continuation of the most important properties, when such properties have been once established. But in doing this I have adverted to several other particulars, which appear to me to arise immediately from the subject, and to be in themselves of the greatest consequence. How far I have succeeded, Sir, in this part of my design, must be left to your superior judgment; and I can only say, should it meet your approbation, it will certainly afford me the greatest pleasure.

There is one observation I will make, which to many, may be of considerable use. In the course of my experience, when applied to for Cattle, I have several times been requested to send the smallest in my possession; when in point of fact, the situation for which they were wanted, was capable of feeding the largest Ox that ever grazed, supposing the animal to be of a superior quality of flesh, and in other respects good. And such requests I have generally found to be owing to the badness of the Cattle in those particular districts, rather than to the inferior quality of the land itself. In such cases, therefore, it is clearly of importance, that the animal should be of a good size, as well as of a good quality; because when such Cattle are found to do well, that alone will serve to remove the unfounded opinion respecting the soil. But you, Sir, who have excelled in such a superior degree with your Sheep and also in other respects, well know how much de-

pends on the animal;* and that the soil is frequently blamed when the fault lies wholly in the stock. This I have seen proved again and again.

Nothing can be more just, than your observation, "that the attention which gentlemen of landed property have of late years paid to the improvement of breeds of domestic animals, has been extremely beneficial to the country." Had not such improvements indeed taken place during the last fifty years, it would not have been possible to supply the market with that quantity of animal food which the present population demands. Although in several districts these improvements are chiefly owing to the professional breeder; yet it is nevertheless certain, that there are many other situations, where they must first be introduced by the man of fortune. For the common farmer, either from a want of money, or the fear of a miscarriage, will rarely be induced to try an experiment, before he has had it in his power to witness the result. In such places therefore, where the improvements in stock, are at present, either few or none; I think it would not be found a bad plan for those gentlemen who supply themselves with valuable animals, to allow their tenantry to improve from their own stock at a certain reasonable rate. By this means they would soon repay themselves the small expense they had been at; would possess a valuable breed, instead of an inferior one; and by increasing the property of their dependants, would afford to themselves an additional security for their rent. Nor would this be at all injurious to the breeder; for the more valuable stock is known, the more it is sought after. And its great importance can never be better ascertained, than by a reference to the late distressed state of Agriculture. The extent of bankruptcy in those districts where such stock was to be found, was never any thing like equal to the extent, where it was not; other circumstances being the same in both cases. Whatever may be the real degree of success of each nobleman or gentleman in these undertakings; I think all may look forward to a fair remuneration; besides the satisfaction of conferring so great an advantage to their own immediate neighborhood, and being justly entitled to the thanks of the country at large.

I remain, Sir, your most obedient,

And very humble servant,

JOHN WILKINSON.

Lenton, near Nottingham, 1818.

* I suppose, indeed, had some of the finest animals, selected from your flock, been described to those who had never seen them, they would scarcely have given credit to the fact; while those who had been eye-witnesses, if unacquainted with what judgment and perseverance could effect, might have considered the production of such beautiful creatures, rather as accidental, than as arising from extraordinary skill in the art of breeding.

[Appendix in our next.]

Symmes' Theory.—We find from Newspapers, that professor Steinhausen, of Germany, is the author of a similar hypothesis, viz: that our earth is a hollow sphere, not more than two miles thick, on the outer surface of which we live. "If it be so," says the Philadelphia Union, "instead of searching for an entrance at the north pole, we had better begin to dig downwards at once, and see what kind of neighbors we have."

THE FARMER.

BOSTON:—SATURDAY, MARCH 15, 1823.

We have received repeated requests from a number of correspondents to publish particular articles, which will not pass unregarded, but meet our compliance soon as leisure and room can be afforded. We are right glad to perceive an increased and still increasing attention to subjects deemed proper for insertion in our paper; and shall comply with the solicitations of our friends with all convenient expedition. In the meantime our readers may, if they please, apply to us the following couplet from the poet Churchill:

"He hobbled on, his will was good,

Could he go faster than he could?"

and instead of being offended with their freedom, we will thank them for their candor. The intelligence from Europe having set our news-mongers on the tiptoes of expectation, we have concluded to give them something just to slake their curiosity till they can have time and opportunity to mend their draughts from fresher and fuller fountains.

FARMER SUMMARY OF NEWS.

Important News from Europe!

London papers have been received to the 2^d of January, and convey news of much interest. A Manifesto of the Congress of Verona to European Courts has been issued, by which it is considered that the cause is cast, and Spain "must fight"—or submit. The Spanish government appears to be undismayed; and in answer to the despatches of the Allied powers declares in the most decided tone, that it neither receives, in any manner, the right of intervention, nor admits the necessity of any foreign cabinet to meddle with its affairs; and that the remedy of all the evils which may afflict the Spanish nation, only conceives itself. M. Galiano, one of the members of the Court moved that the Committee on Foreign Affairs be instructed to present, within forty-eight hours, the project of an Address under all customary formalities, to be printed in all the living languages, and profusely distributed throughout Europe, in order that the whole world may know that Spain, though she desires peace, does not refuse war; that she is ready to renew the sacrifices she has made, and that she will never dignify one step from her constitutional system. All the public bodies in Madrid have presented addresses to the Cortes, tendering their "lives and fortunes," and breathing revolutionary language.

It would seem by the Manifesto of the Congress of Verona, that the attempts of the Greeks to gain the freedom have not met with the approbation of the potentates. Every approximation to freedom seems to call for the exertion of their energies. The Manifesto contains the following observation—"At the moment when the military insurrection in Naples and Turin yielded at the approach of a regular force, a fire-brand of rebellion was thrown into the Ottoman Empire."

A Paris article of January 12th, says there has been a secret sitting of the Cortes to treat of the question of English indemnities for the seizures of English vessels in the West Indies, of which so much has been said of late. The Cortes are willing to admit the claim and an amicable adjustment will soon take place.

By an article published at Madrid Jan. 9, it appears that the Spanish government has issued two decrees: by the first all the ports of the Spanish Colonies in South America will henceforth be open to all nations; by the second, the demands of the English merchant respecting the losses they have sustained by the piracies in the South Seas have been inscribed upon the great hook of the public debt.

There is every appearance of vigor and animation in the councils of Spain, and public spirit is raised to the highest pitch of excitement. But it is to be apprehended that internal divisions are at least as much to be dreaded as external invasion. Gen. Quesada, one of the oldest of the Spanish generals, has declared that "a Bourbon would redeem the evils to which Bonaparte subjected us, and it is under triumphal arches that a French royalist army would march on its way."

Madrid. The whole population would spontaneously join the French, and the news of its approach would act with electric effect in all our provinces. We not refuse the aid of the English and Portuguese against Bonaparte; how then can we reject the aid of the French, our natural allies, to annihilate the revolution?"

The Austrian, Russian and Prussian ministers left Madrid on the 13th January, and orders have been sent to the French Minister to leave that capital.

An Austrian army of 40,000 men is ordered to assemble in the Italian Provinces; and a Prussian army of equal number, on the upper Rhine, to march through France whenever his Majesty shall require it. Russia has an army in Poland of 100,000 strong.

Earthquake in South America.—On the 18th Nov. a terrible earthquake took place at Valparaiso which two or three minutes laid almost the whole city in ruins, so that not a dozen dwellings remained habitable with safety and comfort. Three hundred persons perished by the falling of buildings, many are missing, and any more wounded. The Governor's palace was destroyed, and the Supreme Director had nearly lost his life in attempting to escape from it. Several towns and villages in the neighborhood were greatly injured.

Later Still.—Since the above was in type we have learned that London papers have been received in New York as late as the 30th of January. They have a very arlike aspect, and there appears to be no other hope of war's being evaded but the powerful interference of Great Britain. A speech of Louis XVIII. at the opening of the session of 1823, contains the following paragraphs:—

"I have ordered the recall of my Minister. A hundred thousand Frenchmen, commanded by a Prince of my family, by him whom my heart recognizes as a son, are ready to march, invoking the God of Saint Louis to preserve the throne of Spain to a descendant of Henry IV.; to preserve that beautiful kingdom from ruin, and to reconcile her to Europe."

"If war be inevitable, I shall omit no effort to narrow its circle, and to limit its duration. It shall be undertaken for no other purpose but to conquer that peace which the state of Spain would render impossible. Let Ferdinand VII. be free to grant his people the institutions which they can hold only from him, and which, by securing their repose, will dissipate the apprehensions of France. From that moment hostilities shall cease. This solemn engagement, Gentlemen, I enter into in your presence."

Notwithstanding this appearance of determined coercion, a London paper says—"Many parts of the French King's speech seemed incomprehensible to the public, and the fall of the various funds has not been so great as was expected on the receipt of such an important document. An opinion now prevails that England will yet be the means of preventing a war by her interference," &c. But other papers consider war as inevitable.

A letter from Verona mentions, that the Archduchess Maria Louisa, widow of Napoleon Bonaparte, was seen at a musical party of the duke of Wellington's, familiarly leaning on the arm that guided the enemies of Europe so successfully against her husband's power and dignity! What would O'Meara say to this?—but "*varium et mutabile semper femina*"

GODWIN, who still lives and thrives, has in the London press, a "History of the Commonwealth of England."

DOMESTIC.—Much damage has been done in various parts of the country by the late rise of waters.—The bridge on the Providence and Pawtucket turnpike road, the bridge on the old road commonly called Natick bridge, and a bridge in Olneyville were all carried away. A bridge at the Arkwright Factory, and one at the Hope Factory were injured, but are passable. Easton's dam in Burrillville was carried away, which in its descent carried away a bridge on the Douglas turnpike. A bridge at Anthony Factory, a grist and saw mill at Coventry, R. I. a Methodist Meeting-house, a new toll bridge valued at \$10,000, and an Oil Mill at Norwich, Conn. and a bridge on the Cheshire turnpike near New Haven, have all been swept away by the deluge. One man was drowned at Norwich.

Hon. Benj. W. Crowninshield is elected member of Congress in Essex South District—and Hon. Jonas Sibley in Worcester South. In Worcester North no choice.

The Health Commissioners of Boston have offered 400 dollars reward, for the discovery and conviction of any person or persons guilty of robbing the graves of the bodies buried therein.

A volume has been published in this city, entitled "Memoirs of the Life and Character of the Rev. John Eliot, Apostle of the North American Indians. By the Rev. M. Moore, pastor of the church in Natick."

An order has passed both houses of the Maryland legislature for a survey of a route for a canal from the city of Baltimore to the Potomac river.

Hon. Henry W. Dwight, member of Congress from Berkshire, Francis C. Gray and Abraham W. Fuller, Esqrs. of Boston, and Benj. R. Nichols, Esq. of Salem, have been admitted at Washington to practice in the Supreme Court of the U. States.

Dreadful Calamity!—The following is an extract of a letter from a gentleman in Mecklinburg, N. C. to a gentleman in Charleston, dated 11th February, 1823—"One of the most afflicting scenes has occurred in this neighborhood—perhaps scarcely to be recorded. The house and property of Mr. Robert Walkup, was consumed by fire about 12 o'clock on the night of the 7th inst. What is most lamentable, five persons, principally young men, (four of them his own children) and a son of Mr. Huey, were entirely consumed in the flames as they lay up stairs!! The house caught fire by accident. Mr. William Flinn, brother to the late Rev. Dr. Flinn of Charleston, escaped by jumping out of the end window, but unfortunately broke his thighs. It was an awful scene to behold next morning."

The National Intelligencer informs us, that not one of the two hundred and five members of Congress has been dangerously ill, during the session which has just terminated.

We understand, (says the Richmond Enquirer) that Mr. Hugh Nelson accepts his appointment as minister to Spain, and will probably sail about the 1st of April.

The expense, so far, of the great Erie Canal, is five million, six hundred and three thousand, eight hundred and sixty-three dollars, and eighty-five cents; wanting to complete the same about two millions more. This estimate is given in a Report of the Canal Commissioners, published in the New York Advertiser, of the 4th inst. When this Canal is completed, says the Advertiser, the works at the Cahoon, Little Falls, the aqueduct at Genesee river, the embankment at the Irondequoit, and the excavation of the rock through the mountain ridge, will afford monuments of the powers of man, and the enterprise of the age, equal to the proudest work of Rome, Greece or Carthage, and scarcely inferior to the mighty emblems of Egyptian grandeur.

Fire.—The house and harness maker's shop of Mr. Whiting, in Concord, Ms. was destroyed by fire on Tuesday last.

Invention.—Adolphus Allen, of Georgetown, D. C. has received a patent for a Water Wheel, which he says is propelled by both ebb and flood tide,—will save the expense of a dam,—is not retarded by back water,—may be applied to any kind of machinery,—and is a very cheap wheel to erect. The Tide-mill, combining these and several other advantages which he enumerates, is certainly worthy of public attention.

Mr. Poinsett has transmitted to Charleston a valuable collection of minerals, collected by him while in Mexico. The Southern Patriot says that most of them are beautiful, some magnificent, and many that would add value to any collection.

The deaths in London during the year 1822, were 18,855; in Philadelphia they were 3,591; in New-York, 3,231, and in Baltimore, 2,319.

By a late report of the Methodist Episcopal Church, it appears, that the total number of Methodists, in G. Britain and her dependencies is 252,570, and the number of travelling preachers there, 970. In the U. S. west of the Alleghany, there are more than one hundred and five thousand members, about four hundred travelling, and nearly one thousand local preachers.

The Looking Glass Curtain at the N. York Theatre is 33 feet by 11 1-2, exclusive of the frame, contains 569 square feet of glass, and its whole weight is nearly two tons.

CONGRESS has finished its session, and, we believe, all is well. There has been but little vehement debate, and very few attempts at displays of oratorical powers. A bill for the prompt settlement of public ac-

counts, and for the punishment of perjury has been passed. A bill has passed both Houses, which provides for admitting revolutionary soldiers upon the pension list, who have become reduced in circumstances, although they may have formerly possessed property sufficient to preclude their claim; and the Senate has receded from a proposition to reduce the pensions 20 per cent. On motion of Mr. Lloyd, of Mass. it has been resolved that the Secretary of the Treasury be directed to cause to be laid before the Senate, at the commencement of the next session of Congress the amount received by every officer in the customs from his per diem, and every other allowance to which he is entitled, by his official employment, and whether any offices may be abolished consistent with the public interest. The Senate adjourned *sine die*, at a late hour in the evening of the 3d inst. A resolution passed the House by a vote, nearly unanimous, that the President be requested to make arrangements with other powers to put a stop to the Slave Trade, and cause it to be denounced as piracy, under the Law of Nations, by consent of the civilized world. A resolution passed, on motion of Mr. Fuller, requesting information from the President, relative to the pretended blockade of the ports of the Spanish Main, and what measures had been taken to obtain restitution of vessels of the U. S. captured by privateers, fitted out at Porto Rico, &c. The thanks of the House were presented to Mr. Barbour, the Speaker, and after the customary interchange of civilities, the House adjourned *sine die*.

PRICES OF COUNTRY PRODUCE, &c.

[Revised and corrected every Friday.]

		FROM	TO
		D. C.	D. C.
ASHES, pot, 1st qual. . . .	ton.	145 00	156 00
" pearl do.		155 00	156 00
BEANS, white,	bush	1 00	1 10
BEEF, mess, 200 cwt. . . .	lbl.	9 50	10 00
" No. 1.		8 50	9 00
" No. 2.		6 50	7 00
BUTTER, inspect. 1st qual. .	lb.	15	16
" 2d qual.		12	13
small kegs, family, . . .		16	17
CHEESE, new milk		7	9
FLAX		8	9
FLAX SEED	bush	90	1 00
FLOUR, Baltimore, superfine,	lbl.	7 50	7 75
Genesee		7 50	7 75
Rye, best		4 56	5 06
GRAIN, Rye	bush	30	35
Corn		72	75
Barley		68	70
Oats		44	47
HOGS' LARD, 1st sort . . .	lb.	9	12
HOPS, No. 1,		10	12
LIME,	cask	1 25	1 50
OIL, Linseed, American . .	gal.	65	70
PLASTER PARIS	ton.	3 00	3 25
PORK, Navy Mess	lbl.	12 50	13 00
Bone Middlings		15 00	15 50
Cargo, No. 1,		12 50	13 00
Cargo, No. 2,		11 50	12 00
SEEDS, Herd's Grass . . .	bush	2 25	2 50
Clover	lb.	8	9
WOOL, Merino, full blood, washed		50	60
do. do. unwashed . . .		40	45
do. 3-4 washed		45	47
do. 1-2 do.		40	45
Native		35	40
Pulled, Lamb's, 1st sort		55	60
do. Spinning, 1st sort		47	50

PROVISION MARKET.

BEEF, best pieces	lb.	8	10
PORK, fresh		5	7
VEAL,		6	9
MUTTON,		3	7
POULTRY,		7	10
BUTTER, keg & tub		16	17
lump, best		20	22
EGGS,	doz.	16	18
MEAL, Rye,	bush	90	
Indian,		80	85
POTATOES,		37	
CIDER, liquor,	lbl.	1 50	
HAY, best,	ton.	20 00	24 40

BY T. G. FESSENDEN.

ON THE LAUGHTER OF FOOLS.

A bunch of thorns beneath a boiling pot,
That flashes with a deal of crepitation,
Is like a fool,* whose days are spent in what
Johnson would call a state of *cachinnation*.

His features glimmer with some scurvy joke
His wandering wits have long been seeking after;
Then flies his "bolt," succeeded by a stroke
Of thundering self-congratulating laughter.

Elated by each would-be witty thing
He has *himself* the happiness of saying,
His throat and lungs so dissonantly ring
You'd think his kindred animal was braying.

And when some greater, and more noted dunce
Makes vain attempts at wit or repartee,
His grinning faculties take fire at once,
And one fool echoes to another's glee.

There is contagion in a great man's mirth,
Which all must catch who would be tho't genteel;
And when he says the silliest things on earth,
Salute him still with laughter's loudest peal.

Thus when the leader of a flock of geese
Pipes to his cackling comrades, one and all,
Each goose and goslin bids the din increase,
Till swells the concert with one general squall.

Too many a "pretty looking" Miss I've seen,
Whose every word was prefaced with a titter,
And thought it strange, with beauty's air and mien,
The cap and bells of foolishness should fit her.

Next to the villanous Sardonian grin,
The heartless laugh of pride and affectation,
To show white teeth, a dimpled cheek or chin,
Merits and meets the highest reprobation.

I've not the least objection to a laugh,
To chase the fiend of "loathed melancholy,"
But hate the lowing of a biped calf,
Whose laughter sounds the trumpet of his folly.

E'en now and then a hearty ha, ha, ha!
Is well enough, in Chesterfield's despite,
But those who laugh, and cannot say what for,
In my opinion act like idiots quite.

* Ecclesiasticus vii, 6.

Providence never intended to make such a difference between creatures of his hand, as that some should live only to enjoy, while others lived only to be ministers of enjoyment.—Though in an advanced stage of society some must be exempted from eating their bread with the sweat of their brow, and be busied rather in intellectual than manual labor, yet it is an immutable decree that the oil of gladness shall brighten the face of industry alone.

The conversation of men of talents and information furnishes a delightful and profitable source of knowledge. In this way we may avail ourselves of that intellectual wealth which is more valuable than gold, and by the exchange of ideas a sort of mental commerce may be kept up, which enriches all the parties concerned.

The interests of agriculture, manufactures and commerce are so inseparably connected that any serious injury suffered by one of them must injure the others.

From the Emporium.

ITS ALL MOONSHINE.

When I see a young man pursuing a gay butterfly of a girl because she is beautiful, though she possesses none of the qualifications necessary to make a good wife, a good house-keeper, or a good mother—depend upon it he is grasping at a phantom—*its all moonshine*.

When I see pleasure hunters, and those who are seeking after happiness, plunge into dissipation; or seek gay and giddy company; or drink deep of the cup of sensual enjoyment, I feel for them; I know the disappointment that awaits them; these are not the pearls of price, that bring with them peace and content; they are worthless—they are *nothing but moonshine*.

When I see a gambler forever running to the billiard table, with eager hopes of making money thereby, and carrying with him the means by which his family can be supported, to squander it there; I think with a sigh how sadly that poor man mistakes the path of wisdom, and labors after that which is *all moonshine*.

He is grasping at moonshine, who strives to raise his consequence in the world by a suit of fine clothes, or an unpaid for sideboard; and so he is who aims at building a foundation upon which to elevate himself in the estimation of the world, on a few thousand of paltry dollars; for, as Burns says,

The rank is but the guinea's stamp—
The man's the gold for all that—

and none can ever become truly great but those whom nature has fitted to be so.

These are plain palpable cases; I have sometimes thought men were grasping at moonshine too, who attempted to live by literature, or make money by printing papers; or dreamed of collecting their debts or of receiving legacies in these times; yet as these may be doubtful, I will not persist in them.

Another Caution.—Two children were one evening last week nearly suffocated by inhaling the vapor from a pan of burning coals placed in a small bed chamber. During the absence of the parents, the children were put to bed in an apartment containing no fire place, about half a peck of lighted charcoal placed there to warm the room, and the door shut! A slight groan was accidentally heard by the only person awake in the house, who hastened to the chamber and found the youngest, about four years old, in a state of insensibility and entire prostration; from which by the use of the most active measures, he was not recovered until more than half an hour had elapsed. The eldest was faint and speechless for about the same length of time. Parents and others cannot regard this fact with too much concern. There is nothing more destructive to the vital organs, than the mephitic effluvia which arises from charcoal in a state of ignition.—*Nantucket Inq.*

Amidst all the singularities of the *Shakers*, they have some rules which it would be well for people of all denominations to adopt:—"It is contrary to order, or the gift, as they call it, (says Professor Silliman, in his Tour,) to leave any bars down, or gates open; or leave any thing they use out of its proper place; consequently they seldom have any thing lost. It is according to the gift, or order, for all to en-

deavor to keep all things in order; indolence and carelessness, they say, are directly opposite to the gospel and order of God; cleanliness in every respect is strongly enforced—it is contrary to order even to spit on the floor—A dirty, careless, slovenly, or indolent person, they say, cannot travel in the way of God, or be religious. It is contrary to order to talk loud, to shut doors hard, to rap at a door for admittance, or to make any noise in any respect even when walking the floor, they must be careful not to make a noise with their feet. They go to bed at 9 or 10 o'clock, and rise at 4 or 5. Every man and woman must be employed, and work steadily and moderately."—Trifling as these rules may appear, their adoption would have a very important effect upon any household or community.

Sparrows.—It has been ascertained, as nearly as such things can be, that a pair of sparrows destroy in one week, 3360 caterpillars. We did not know before, but we should always remember, the obligations we owe to these little favorites of heaven.

While the celebrated Mr. Dodd was balancing between his inclination to marry, and his apprehension that he would be unable to maintain a family with his slender income, he happened, on looking out of his window, to observe a Hen, with a large brood of chickens, busily employed in supplying them with food by scratching, &c. This spectacle decided him in favor of matrimony. "If, thought he, this hen, who could barely, with her exertions but a short time since, obtain a subsistence for herself, is now able to provide for her numerous offspring, surely I and mine will not be permitted to suffer."

When Cowper was made Bishop of Gloucester, an old woman who had been one of his parishioners at Perth, and a favorite, could not be persuaded that her minister had deserted the Presbyterian cause. Resolved to satisfy herself, she paid him a visit in the Canongate where he had his residence, as Dean of the Chapel Royal. The retinue of servants through which she passed staggered the good woman's confidence; and on being ushered into the room where the Bishop sat in state, she exclaimed, "Oh Sir, what's this?—And ye ha' really left the guid cause, and turned prelate!" "Janet (said the Bishop,) I have got new light upon these things." "So I see Sir, (replied Janet;) for when ye was at Perth, ye had but ane candle and now ye've got twa before ye; that's a' your new light."—(*McCrie's Life of Melville.*)

Tight Lacing.—It has long been a matter of regret with persons of good sense and good taste, that many of the females of this country injure their health and real beauty of form, [as the pressure generally forces out the parts unpressed] by the absurd practice of wearing tight stays. The folly seems now to have spread to the men, if indeed such blockheads merit that appellation. It is a fact that an ex-quirit fainted away on Friday in Bond street, and was assisted into a shop, where he was some time before he recovered. Medical aid was sent for, when it was ascertained that his stays were too tight.—*London paper.*

NEW ENGLAND FARMER.

PUBLISHED BY THOMAS W. SHEPARD, ROGERS' BUILDINGS, CONGRESS STREET, (FOURTH DOOR FROM STATE STREET.)

VOL. I.

BOSTON, SATURDAY, MARCH 22, 1823.

No. 34.

FACTS AND OBSERVATIONS RELATING TO AGRICULTURE & DOMESTIC ECONOMY.

BY THE EDITOR.

A NEW KIND OF INDIAN CORN.

Mr. Daniel Burnham, of Newburyport, has given a statement of a new kind of Indian Corn which he has successfully cultivated. The following is an abridged account of its qualities, mode of culture, &c. The seed was raised at Council Bluff, on the river Missouri, and was received at that place from the Maha Nation of Indians. The kernel is large, free from flint, and filled with a sweet white flour. It is generally eight rowed, but sometimes has ten or twelve rows. Mr. Burnham planted some of it last spring on rather a light soil, inclining to gravel, with a northern aspect. It had lain to grass for the two years previous, without manure, and the crops scanty. The sward was so tender and broken, and the plough clogged so much that it could not be turned so well as wished. It was harrowed, and holes made at the distance of four feet one way, and three feet the other. Five cords of common barn manure (about half new and half old) were put in the holes in a very coarse state. The greater part of the manure strong, but some feeble. Three kernels were placed in an hill, and nine quarts of seed were put on an acre and a quarter. The process of planting was not well executed. The ploughing and planting were done from the 4th to the 7th of May. To supply the efficiency of standards, occasioned by drought, about the 25th of May, Mr. B. planted seed in drills, from which he transplanted into the field from 450 to 600 plants, and from earing time to harvest the transplanted corn could not be distinguished from the other. The corn was hoed four times, without ploughing between the rows.—The fourth time was merely loosening the surface of the ground and destroying the weeds. The appearance of the corn was unpromising till the rains had wet the manure. It then exhibited a very remarkable growth, and its luxuriance became so great that it was apprehended by many, that the crop was much at hazard. Some of the seed was planted in the drill method, each standard from fifteen to twenty inches sunder, and Mr. B. believes if the field had been planted in this form, the crop would have been more abundant. This method would give room and space to the shoots, but they were so crowded, by being in hills, that they could not have proper expansion. The height of the stalks was not much greater than that of the common corn, but above and below the ears they are much larger. It was not uncommon to see from three to five large shoots on a kernel, and on a shoot two good ears.

Mr. B. is of opinion that the best and most abundant crops may be obtained from mixed seed; and says, "What I mean by mixed seed is when the kernel has become in a degree flinty, from receiving the Pollen or Farina from our flinty corn."

The fodder on the field was abundant, and thought by good judges to be fully equal to two tons of good English hay. The time and labor

of cutting and curing the fodder three times as much as on common fields of the same size. The harvesting of the bottoms was about in the same proportion. The topping of the corn was done about the 20th of September. The harvesting from the 18th to the 24th of October. In husking of the corn two qualities were made. Of the prime corn there was 110½ bushels; of the inferior 7 bushels, making in the whole 117½ bushels. Mr. B. says, "I am decidedly of opinion that had the field been planted with any of our common seed under similar circumstances, from fifty to sixty bushels would have been the extent of the crop. The expense, he thinks, was not less than sixty-five dollars, including manure, land-rent, and every other expense. The field was in the middle of the town, was much exposed, and robbed of some of its best ears. It was thought that in this way it suffered a loss of at least three bushels, but this loss could not be ascertained, and was not brought into the account.

Mr. Burnham next adverts to some of the disadvantages attending this sort of corn; and says that the pure seed in some seasons would be in danger of injury, as corn is commonly played after husking, because the cob contains more moisture than that of our common corn. But he does not consider the mixed seed as liable to this objection; and observes that if it could be made certain that the pure seed would in all seasons, come to maturity as fully as our common seed, yet the mixed seed is to be preferred, and much more may be expected from it than from any corn we have among us. It weighed, when taken from the cob, 48 lbs. to the bushel, and when thoroughly kiln dried its weight was exactly 50 lbs. After drying, it was ground into meal, and tried in various ways for bread, and the result was much in its favor. It requires of boiling water, to wet a pound, six and an half gills. At the same time trial was made of some of our yellow meal, from the last year's corn, and it required four and a half gills to the pound.—See Mass. Ag. Rep. for Jan. 1823.

CARROTS AND RUTA BAGA.

The same No. contains, (page 281,) a statement of Gen. Hull, of Newton, giving an account of his having raised a crop of Carrots and Ruta Baga, from which we gather the following particulars.

After a very deep ploughing in April, fifteen cart bucks of manure were spread on the ground, and immediately covered with the plough.—About the middle of May the land was harrowed and then ploughed very deep in ridges, two feet apart. The seed was sowed in single rows on the top of these ridges, between the 21st and 25th of May; about a pound to the acre. The seed not being of the best quality, and the season unfavorable, it came up thin. The latter part of June, ruta бага were set in all the vacant places in the rows, where the carrots had not come up. The crop was gathered early in November, and the acre produced four hundred and thirty bushels of carrots, and two hundred and nineteen bushels of ruta бага, making six hundred and forty-nine bushels of both. The

value of this crop was estimated at \$140; and the costs of cultivation, &c. \$71, leaving a profit on an acre of \$69, without reckoning the worth of the tops.

The same No. of the Agricultural Repository p. 225 contains an account by the same gentleman, of the culture and produce of seven eighths of an acre of Indian Corn. In 1821, the ground was mowed, and produced about one ton of English hay. No manure was put on the ground that year. It had been laid down to grass eight years. In October 1821, it was broken up, and remained in that situation until the spring of 1822. The last of April, it was well harrowed with a sharp iron tooth harrow. After this a composition of three loads of night manure, mixed with nine cart bucks of rich earth dug from the side of an old stone wall, and ten bucks of summer dung from the cow-yard, were equally spread over this land, and immediately covered by the plough, ploughing across the furrows. Between the 6th and 12th of May, it was harrowed three times with the same harrow. Furrows were drawn north and south three and a half feet apart. No ridges were formed. Hills were then made with the hoe, in these furrows, two feet apart, not flat, but descending to the south, with a small bank of earth on the north side of each hill. This banking on the north side of the hill was only done on a part of the field. From this mode of planting I calculated two advantages; one, the sun would have a more direct operation on the hill; the other, the tender plants, when they first came out of the ground, would in some measure be guarded from the cold north winds. The corn was planted between the 15th and 20th of May, with four kernels in each hill, equidistant, about five inches. It was ploughed and hoed three times, and at each time of hoeing the furrows were filled up and the ground left nearly level. The first ploughing and hoeing was the 5th of June; the second the 20th; and the third and last, the 5th of July.

"As the ground, by deep ploughing and hoeing, had been rendered loose, I was of the opinion, the hills would receive more nourishment and stand stronger, by the roots running under ground in the whole space between the rows, than by drawing the rich earth around the hills with the hoe, as is the usual custom. Besides the dews, the light rains and the sun have a much greater effect on the roots, when the ground is left in the manner I have here described, than when the earth is banked up around the hill. And further when high hills are made, the roots running horizontally will run out of the ground and perish.

"Every thing which had been anticipated with respect to the manner in which this field of corn had been planted and cultivated was realized. While other corn in the same enclosure and near it, was perishing during the dry season, not a leaf in this field even curled, and no part of it, in the least degree suffered by the drought. The second week in October it was harvested, and from this seven eighths of an acre, was measured one hundred and ninety-two bushels of ears, after the husks were taken

were taken off, equal to ninety-six bushels of shelled corn. The whole was sound, and suitable to grind into meal, excepting three bushels of ears."

The value of this corn, including four bushels of beans, raised by way of experiment on about half the piece, was 122.56; the expenses of cultivation were \$57.75, leaving the neat profits of seven-eighths of an acre of Indian corn, \$64.81.

From the Old Colony Memorial.

SIR—I am a plain countryman, constantly employed in the labors of my farm. My journeying is pretty much confined to a ride once in a year or two to the cattle show, and my reading to an evening recreation (after the cattle are taken care of, and the children put to bed) in looking over the Old Colony Memorial, or the Agricultural Repository.

In reading the latter work, and in my occasional visits to our shows at Brighton, I have been forcibly impressed with an idea that the principles on which the premiums to animals are awarded are erroneous.

I must beg with all possible humility and submission, to express my dissent from the opinions of gentlemen who have done more essential service to their country, than any set of men since its settlement; I mean the Trustees and leading men of our society. But they are in the higher walks of agriculture. They improve soils, and make compost, and breed cattle in their libraries or their flower gardens, and I apprehend it is from such plain working farmers as myself that they will be willing to receive hints.

My objections are to the high premiums uniformly given to imported stock, and the general preference of huge, overgrown, high fed animals. Cannot the native stock of cattle in this state, (by liberal patronage) be improved to as great perfection as any that can be imported? It was originally from Devonshire, and is (I believe) of the best breed of Great Britain. But even if not, it seems to be proved by the noble experiments made there during the last half century, that very little (comparatively) depends on the original stock, and every thing on a careful and skilful selection of the best breeders. If this state should ever have the honor of producing a *Bakewell*, our society (on its present plan) will not be entitled to a whit of credit for patronage, or encouragement. We reverse the grand patriotic maxim, and give hundreds for tribute to foreign animals, but not a cent to defend or improve our own stock. Like the silly country belle, who sends all her substance abroad to purchase a bonnet of chin-chilla with ostrich feathers, instead of making an article every way more tasteful, elegant and comfortable, of the down from her own turkeys.

This subject has been suggested to my mind at this time, by the very able report, No. 1, of the cattle show at Brighton last fall. The author of that report has proved himself one of the most eminent of patriots in devoting his great talents to the agriculture of his country. His ardent zeal and perfect disinterestedness, cannot be doubted, and I certainly should never venture to differ from him, as to the justice of his awards. It is to the policy of the rule, not the fairness of the awards, that I wish to draw the attention of that gentleman and the society.

He intimates in his report, that any one who

observes the continued crowd around the pens which contain the imported stock, must be satisfied of the public preference. But I would ask, is this an evidence of preference, or only of wonder? Put a man of the most perfect form and stature in one place, and the most hideous giant in another, and see which will attract the greatest crowd of observers.

I was at the show in 1819, and recollect a cow was exhibited by Mr. Coolidge, said to be of the Holderness breed. She was a long legged, gaunt, awkward creature enough; with a bag as large and as white as a milk-maid's fist, and teats like her "taper fingers." The people did indeed crowd around her pen, but it was to search in vain for some latent excellence, and then indignantly exclaim,

"The thing is neither rich nor rare,
I wonder how the devil it came there,"

but this cow was far-fetched and obtained a premium.

I observe the first premium for a bull in the aforesaid report, is to one fifteen months old, weighing 1243 lbs. and the second to one seven months old, weighing 735 lbs. Now, Sir, is the extreme bulk of such animals, any excellence in them, and yet it would seem that their weight was the cause of the premiums being awarded to them. Let the honorable gentleman to whom I have alluded mix as I have done with the multitude without the pens; he will be satisfied that plain practical farmers, while they admire at the overgrown, pampered beauty of such animals, would no more think of taking them for their own farm stock than they would go to a turtle feast, and select a fat Alderman for their working farmer. They observe with wonder, what may be done by dint of high feeding and rubbing, and of what exquisite polish the hide of a bullock is susceptible; but without the least disposition to profit by the observation.

I have extended these remarks much beyond what I at first intended, but if they should be taken in good part by the great folks of our society, and induce them to take into consideration the expediency of giving generous premiums to the best animals, without regard to the place from whence they came, or to their being of enormous size, it will highly gratify me as a member of their society and an OLD COLONY FARMER.

REMARKS ON THE PRECEDING ARTICLE.

FOR THE NEW ENGLAND FARMER.

A writer in the Old Colony Memorial, a very respectable Journal, has expressed his disapprobation of the conduct of the Trustees of the Massachusetts Agricultural Society in their distribution of premiums on Cattle. We shall pass by the witty remarks on the "*Gentlemen Farmers*"—they are ready to submit to be the butt of the real farmers of the East and of the West, and will patiently pursue the great interests of Agriculture, unmoved by ridicule. When they are told that "they improve soils, and make compost, and breed cattle in their libraries, or their flower gardens," they will make no other reply, than by saying, if Mr. Quincy's 30 acres under root culture in one season—Mr. Pomeroy's—Mr. Welles's,—Mr. Parsons's, and Mr. Prince's extensive fields, are only "flower gardens," we wish there were more of them, and we doubt whether their products would be so great as they have been, if their "compost" was confined to their "libraries." As to their cattle, they raise them precisely as we presume

they do in the Old Colony, on hay, grass, and roots. If there is any other mode known to the gentlemen of the Old Colony, cheaper and better, we should be happy to hear an account of it. That they feed their stock better, we think probable, but still any man conversant with the mode of keeping stock in England, must admit that even to this day the most careful of us do not feed our cattle so well as in that country. We are ready to say, that we think the greatest defect, which still exists in this grazing State is the parsimony of our farmers as to food, and attention, particularly as it respects young cattle and milch cows.

But the principal object of my present remarks, is a suggestion, directly applied to the Committee, on the larger class of animals, of which Committee I have been for several years the Chairman. The criticisms of the writer to which I shall confine myself, are the following: "My objections, says the writer, are to the high premiums uniformly given to imported stock, and the general preference of huge, over grown high fed animals. Cannot the native stock of cattle in this State (by liberal patronage,) be improved to as great perfection as any that can be imported?" The writer then proceeds to state that our race of cattle is of the Devonshire breed, and that it is proved by the "noble experiments" made there (in England) during the last half century, that very little depends on the original stock, and every thing on a careful and skilful selection of the best breeders.

Now it so happens that the Trustees of the Massachusetts Agricultural Society have always entertained precisely the same opinions with those expressed by the writer in the Old Colony Memorial, though it seems from the want of precision in their expressions, or from some other cause, they have not been understood.

The writer alluded to is mistaken as to the facts in the following particulars:

1st. High premiums are never given to imported stock, when put in competition with our own. There never has been a competition between imported stock, and our own stock, at the Cattle Shows. Imported stock are not candidates for any premium whatever. The error of the Old Colony writer has arisen from his confounding the reward we pay (not out of the legislative funds, but our own,) for the importation of a few improved animals.

Thus, we encouraged the introduction of Merino Sheep—and recently of the Dishley and long-woolled Leicester Sheep—and we also offered a reward for the importation of the improved breeds of Cattle; but they do not compete with our own in any case. If Bakewell and Princeps and their successors have, during a period of fifty years, so improved their stock of horned cattle, as that a bull of the best improved race will sell for forty times the price of a common bull, is it not judicious in us to save a part of this long process of improvement by importing one already improved?

2d. The second error into which the Old Colony Farmer has fallen, was in supposing we preferred huge, over-grown animals. So far from this, we have done every thing in our power to discourage such animals, both by our remarks, and our premiums. We give the preference always to animals of little bone, and great flesh, which shew an early and ready disposition to fatten.

3d. He was mistaken in supposing the Trus-

es had any thing to do with these questions. There is but one Trustee on a Committee, and he ordinarily gives no opinion. The persons who decide are farmers, and persons who put up cattle for beef. A man who buys 500 oxen a year, handles them, and has them cut up, must be a better judge than any practical farmer owning 20 or 30 head of cattle. Such practical purchasers are not apt to mistake a long, link, raw-boned animal for a profitable one.

We are happy to find that we agree entirely with the Old Colony Farmer in the principles which should govern us. The only question is one of fact, whether we have acted up to our principles? This rests, not upon the Trustees, but on the gentlemen selected for their skill.—It is true that the crosses from foreign breeds have been generally preferred, but it was because (not the Trustees) but the committee of dependent Farmers thought them generally better formed—of finer, and more delicate limbs—better adapted to fatten, and on the whole better animals, than the native ones offered at the same time. So far is it from being generally true, that these animals were more huge or overgrown, it is a fact, that the native bulls are often much the most gross, heavy and coarse. It should be recollected, that almost every premium has been awarded either to native animals, or to those of half-blood, one part being native.

The only object of these remarks is to promote the cause of truth, and to remove unfounded prejudices.

The Chairman of the Committee on Premiums for Cattle, at the last Brighton Show.

TO THE EDITOR OF THE NEW ENGLAND FARMER.

DEAR SIR—How is it that the Trustees of the Massachusetts Society for promoting Agriculture, do not encourage the breeding of that useful animal the Horse—an enquiry frequently made, particularly by the friends of the Turf. One of Mr. Lowell's reasons was itself conclusive—that no encouragement was necessary, for good horses would command a great price in any market in the United States. On reading the American Farmer of Feb. 28th, No. 49, vol. 4, p. 290, I perceive a Virginian addresses the Editor on the breeding of horses in that state, and furnishes a precious conclusion of facts; if you think as well of it as I do, wish I would give it a place in your next paper, and oblige your friend and humble servant,

GORHAM PARSONS.

Brighton, March 10, 1823.

From the American Farmer.

Virginia, February 14th.

MR. SKINNER—The symptoms of a revival in the long laid spirit of the turf, together with several pieces, which have appeared in the public prints, upon the improvement of our stock of horses, setting forth erroneous views on the subject, as I conceive, will be my apology for troubling you with the following remarks, for the American Farmer, should you deem them worthy a place in its columns.

Perhaps the novelty of the opinion, that the state and passion for racing, so far from contributing to, has retarded the progress of improvement in our horses, may attract some curiosity; it, when it is stated further, to be an opinion deliberately formed, upon an experience of twenty years breeding, commenced under the ill impression, that the English race horse was a perfection of the species, I may hope for patient reading, from all whose minds are open to conviction.

The essential points of the English turf horse, are, a thin and deep shoulder, narrow breast, delicate clean legs, long in the pasterns, a broad or wide hock well let down, and a thigh or haunch more remarkable for length than bulk. A long back more common than a short one, and a body oftener flat sided than round—and, finally, the taller the better, but not less than sixteen hands, for a first rate courser. This carcass and set of limbs is covered by a skin so thin and a coat of hair so fine, as to express the very veins as well as the muscles, beneath the delicate integument.

A long, low, slouching carriage, in every gait, follows as a consequence of the above form and proportions. The very best calculated, truly, for a four mile heat, on a smooth course, but that it is totally unsuited to the road, I will use no other argument to prove, than one which all sagacious readers will have deduced already from the premises, if it were not established by the known general rule, that "a race horse is a stumbler."

Equally disqualified by the nature of his skin, is he for the harness—the slightest pressure producing a gall—and as unsuited are his long legs and limber pasterns to the frequently deep state, and irregular surface of our roads, that a horse of compact form and nimble movements, with a strong coat on his back and shoulders, and not within a hand of his height, will always be found more lasting and serviceable. Moreover, the running stock are frequently vicious and unmanageable, and very generally so shy and timid, as to render them in a great degree unfit for the purpose of war. In England, the horses of this strain, are rarely used, but to contribute to the most ruinous and expensive of their pleasures*—and I am strongly inclined to the opinion, that the highest style of the English race horse, which it has been a very prevalent folly with us to take as our model, is a forced anomaly in the species, introduced and propagated by a prodigality of attention and expense, such as the enormous wealth of the nobility of England is alone able to sustain.

The noble animal to be cherished as the companion of our manly pleasures and glorious achievements, should be of the form for power, docile and courageous in his temper, quick, firm and clear in his movements. These properties are found for the most part connected with roundness of contour and strength of articulation; with a texture of skin and strength of coat, which will bear the pressure of the saddle and the friction of the harness; and as far as my experience has gone, it is rare, that you find a horse of this description exceeding fifteen hands and a half high. All the finest horses in the world, may be traced to the Arabian stock. The English race horse is of Arabian descent, with the peculiar objections above described, but which I am happy in believing, the Author of Nature has kindly decreed shall never be made indigenous to our soil and climate. The English blooded stock, tho' kept pure and uncrossed, essentially change their characters after a few generations in our climate, and manifestly for the better, as to every rational and useful purpose. The native Virginia horse of the third and fourth generation, from the light and washy figures of the purest English stock,

* It may be safely asserted, that racing has put more of the estates of the English nobility to nurse, than any other single cause.

become less tall, with more bulk, shorter and stronger jointed, with a thicker and coarser coat; with these changes, there is a corresponding one in gait and carriage. They are more active and sprightly in their movements, and better able to stand the vicissitudes of our climate. Our food, our climate, and our management are quite sufficient to account for these changes. Our maize, which forms three-fourths of the grain fed to our horses, in the parts of the states below the mountains, (where our best horses are found,) is by far more nutritious than the oats of Europe, or any other grain used for the food of horses in any other country. Our young horses are more exposed to the weather, and when taken in hand are not put into close and warm stables, and clothed, as is generally the case in England.

It is a fact well known to the amateurs in this favourite animal of the Virginians, that we abounded much more in a fine race of horses for the saddle and the harness thirty years ago than at this day. This was precisely the period when the descendants of some of the best of the English stock which had been early imported into the colony, had become acclimated and fully naturalized—and I have but little doubt had we proceeded upon the rational plan of breeding solely with an eye to qualities for service, rather than the worse than useless properties for the turf, Virginia would now have had the most valuable race of horses in the world; but unfortunately, about twenty five or thirty years ago, the late Colonel Hoopes, of Bowling Green, of well known racing memory, and many others, availing themselves of the passion for racing, inundated the state with imported English race horses, well nigh to the extinction of the good old stocks of Janus, and Fearnought, and Jolly Roger, and Mark Anthony, and Selim, and Peacock, and many other but little less tried and approved racers. The difficulty of getting a fine saddle horse has of late become a general remark; and when you do find one, with the exception of now and then a Diomed or Bedford cross, you rarely hear of any other of the late imported blood in his veins. The descendants of Cormorant, and Sterling, and Spread Eagle, and Seagull, and Buzzard, and Dare Devil, and Oscar, and Saltrum, and twenty others which might be added, are either extinct or still languishing through the probationary term of over pampered exotics—such as have the stamina to go through the trial and become naturalized to corn and fodder in log stables, may form the basis of some future good stock; but, I dare say, we shall never hear of many of them again. Upon this subject, few perhaps, have had more experience than the author of this communication; having labored under the racing mania for a term of years, that almost reduced him to a race of worthless garrans, though none of their distinguished dams cost him less than a hundred guineas a piece, and were certified for, through an uncontaminated succession of famous English ancestors down to the Godolphin Arabian. Fortunately, however, about twelve years ago, I became convinced of my delusion, and since I have been endeavoring to get back to the well known old stocks, and breeding exclusively with a view to useful qualities, the result has answered my most sanguine hopes.

One of your constant readers, with a full share of Virginia fondness for horses.

REMARKS

ON THE IMPROVEMENT OF CATTLE, &c.

In a letter to Sir John Saunders Sebright, Bart. M. P.
by Mr. John Wilkinson, of Lenton, near Nottingham.

Let each succeeding race employ your care,
Distinguish which to slaughter, which to spare;
Mark well the lineage,—let the purest make,
From purest blood, its just proportions take.

(Continued from page 262.)

APPENDIX TO THE PUBLIC.

It was highly gratifying to me at first, that many who have given their most serious attention to these matters, should have thought me in any measure qualified to elucidate a subject of such vast importance; but it was still more so, when after repeated solicitations, and I had at length complied with their request in offering my remarks, that the remarks themselves should have met with so much approbation from the public at large. Nor can I pass over the pleasure I have felt at being told, that they have already been of considerable practical use.

I have had reason to hope indeed, that they may have been of some slight service in directing the attention to the shapes of Cattle, for laying on the greatest quantity of meat in the prime parts, and in describing the best kind of flesh,—in shewing, that the fattening qualities of Cattle are not incompatible with the milking, and that the latter therefore ought by no means to be neglected,—and lastly, by pointing out the absurdity of keeping an inferior animal on pretence that it is well-bred.

In these particulars, I had observed many and grievous mistakes; and it was really lamentable to find with the present desire of improvement, that some had given large prices for animals, that were in themselves so extremely defective. It happened, therefore, that the end proposed in several cases, was not answered; and a consequent disappointment was thrown in the way of future exertions. And hence it became desirable to give, in the most plain and simple terms, such general rules, as might enable every one in some measure to judge for himself.

In questions of a practical nature, experience must be attended to; and results carefully observed: for theory without practice, is generally idle and visionary; and of little or no use when put to the test. But then it is also to be remarked, that along with practice, the most patient thought and careful reflection, not only may be, but often are of the highest importance. In the case before us for instance; to know what would be the best possible shapes for Cattle in their several parts (whether such animals could be exactly found or not) would be one of the surest means at length to obtain them; by selecting those continually, which most nearly approximate to the form itself.

Were people to think more indeed, errors in opposite extremes, would not so frequently follow each other. Light fleshed animals would not have been approved of for a single moment merely because some that had plenty of flesh, were of a hard and bad quality. Of such, the trial need never have been made: it was obvious, they would not answer. By a little reflection too, it never would have been concluded, that Cows that were great milkers, could not also be quick feeders; for this at least could have

occurred to the mind, that when they were wanted for feeding, they would at that time be dried of their milk; so that the objection, urged against their feeding, would have fallen to the ground, even on its own principles. Again; most hard fleshed Cattle, have also thick, hard skins; hence many have sought for such as have their skins remarkably thin, and these are too often of a very delicate and tender constitution. The truth is, though hard fleshed animals, are generally covered with a thick, hard skin; yet there is a skin of a certain substance, which is by no means hard, but of a rich and mellow feel, covering an animal exceedingly inclined to fatten. And these I think are very greatly to be preferred: for every one must perceive, that the skin is of the highest use to protect the animal from those various changes in climate, it is obliged to undergo.

But lastly; of all the errors arising from a want of due reflection only, (independent of a proper attention to facts) none can possibly be greater, than that of keeping an inferior animal to breed from, on pretence that the animal itself is well-bred. It is observed by the advocates of this system, that *breed will shew itself*; that *the qualities of the ancestry will be seen in the future stock*. True; and will not this law of nature then apply to inferior animals in the pedigree, as well as to the superior? It unquestionably does. In theory, there is the same reason for its holding in the one, as in the other: and in practice we find that this is the case. It is strange that persons who have fallen into this error, and have brought forward the foregoing argument in their defence, did not immediately perceive, that the argument was quite as much against them, as they took it to be in their favor. From this mixture of good and bad animals in the ancestry of some flocks and herds, it happens, that while we behold in the progeny some that are good we also find some that are very deficient; and on such stock, little or no dependance can be placed. I observed in the remarks themselves, that a bad animal has scarcely ever a good pedigree; that on examination, we shall generally find something wrong in the ancestry at one point or other: or that if such a case actually occurs, it is most probably owing to some accidental circumstance, such as illness, or injury received by the parent while pregnant, &c. &c. But supposing such a thing really to happen without any such accidental circumstances at all, then it is a deviation in nature, I think not less remarkable, than that a pair of rooks or blackbirds should produce a nest of young ones that are perfectly white. Whatever may be the real cause however of the birth of an inferior animal, we shall perceive in each particular case many and strong reasons why it should not be kept to breed from. If it has arisen from illness in the parent, its own constitution is most likely weakened and injured, and this in all probability would again be entailed on its offspring. If it be one of those strong deviations in nature, which may possibly occur (though I am persuaded very rarely takes place) without our being able to account for it according to the common course of things; then we know, as in the example given above, that this deviation, however great, may be continued; that white roots being once obtained, a breed of the same description might by care be at length established: and moreover without

this care, that the white color would be almost certain to shew itself in some of the progeny. And by analogy, the same thing would appear reasonable with respect to deviations in mal or shape: but what a practical man is most concerned with, it is so in fact. That the qualities as well as the good, are liable to be inherited, was a circumstance well known to the ancients, and has often been remarked by their best poets.

In bringing forward these examples in order to shew that if practice were accompanied by more reflection, many errors would certainly be avoided; I have at the same time selected those of this particular nature, the better to illustrate my own subject. But the observation itself, one of so general a nature, that it applies to most all our undertakings. I have chosen such moreover, where the errors have not only been frequent; but where some of them are of the consequence, and particularly the last, where wherever a due attention shall not be paid to this part of the subject, there, much progress cannot reasonably be expected.

I stated in the remarks, that no animal could be depended upon for breeding, but such as in itself good, and is moreover well-bred in the strictest sense of the words; and I am persuaded that experience will bear me out in this assertion. I might also have added, that which such and such only are used for this purpose, need not be in the slightest fear of disappointment. Horace, a celebrated Roman Poet, well understood the importance of this when he expressed himself in language to the following effect; of which this translation may be given

The brave are offsprings of the brave and good:
In steers and steeds we trace the worth and blood
Of high-bred sires; "nor can the bird of Jove,*
Intrepid, fierce, beget th' unwarlike dove."†

As if the poet had said; that where the ancestry is really good, there is almost as little reason to expect, that the valuable property of the parents should fail in the offspring as there is to expect that an animal of one kind, should ever be the parent of that another.

From what has been advanced on the inheritance of peculiar qualities, it will immediately appear in the selection of Bulls, that besides attending to those properties which belong to the male, we ought to be careful also, that they are descended from a breed of good milkers, least if we wish the future stock to possess this property. It is of far more consequence indeed, that this should be the case with respect to the Bull, than it can possibly be with respect to an individual Cow; because the whole of the descendants will be affected by it.

Since the whole number of good Cattle in the country is at present unquestionably very small; I shall add a few words on what appears to me to be the most probable means of increasing it; but particularly with respect to the use of Bulls. I mentioned in the remarks, that those districts where valuable animals were first introduced by Gentlemen themselves, thought it would not be a bad plan to allow the Tenantry to improve their own stock at a certain reasonable rate; and gave my reasons for the foregoing opinion. I find however, that

* The Eagle.

† The part between the inverted commas, is taken from the translation of Francis.

the spirited Gentlemen who have obtained bulls of me, being anxious to benefit their immediate neighborhood, and particularly solicitous for the welfare of their own tenantry, are allowed such to send their Cows to the bulls without any compensation whatever. There can be no doubt but that such a disposition does them the highest credit; but still I think it would be more beneficial (I speak not their own account, but for the neighborhood large) to take a certain compensation; and not such a one, as should at least keep away the very refuse of the Cattle.* Nor do I think it a bad plan, beside the usual charge for each individual Cow, to have an extra sum for all bull calves that are uncut at four months. Where the cows are tolerably good, even not remarkable for their breed, the heifers are produced by sending such to valuable bulls, may be very useful for future stock; though they cannot by any means be so well depended upon for breeding, as if their Dams had been thorough bred also. But such stock cross a time after time with the thorough bred Bulls, will soon arrive at a very considerable degree of perfection. If however persons breed from half bred Bulls as well as half bred Heifers, it is obvious that there is no continual advancement in blood; the progeny will still be only half bred. Why I should admit of this partial improvement from the Heifers, is this; because in the present state of things, a sufficient number of really valuable animals cannot be procured; and by crossing them in the way I have just mentioned, each succeeding race would no doubt be considerably improved. Still however the value of such a cross must depend entirely on the excellence of the original stock.

Cows, put to the thorough bred Bulls; I must again repeat, that I think very bad ones are better excluded altogether. My reason for advising to charge an additional price for the bulling of any Cow, if the calf itself be reared as a Bull, is to prevent as much as possible the use of Bulls that are descended from moderate females; for on account of the expensive use that may be made of a single Bull, the good or harm done to a neighborhood, according as the Bulls are good or bad, well bred or not, is much greater than most are apt to imagine.

But with every precaution, I know from what I have frequently seen, that it is no easy matter to prevent the use of bulls, descended from inferior cows. In the case of my bull Alexander (an animal well known in most parts of the country) when he was allowed to serve other persons's cows, I found the greatest possible mischief arising from it. For as it frequently happens, that my applications for cattle are greater than I can supply, many were induced to give large prices to others for half bred ones descended from him; when the fact was, some of

* Others have taken a fair price for the general use of their Bulls, but have allowed their own tenantry to send Cows for something less, which I think is by no means a bad plan; as I think this liberality, while it encourages the tenantry, affords the landlord the security I mentioned in the conclusion of the remarks; and to a man of a noble disposition, the gratification of seeing the improvements made on his estate. I presume not however to dictate the best plan for each particular case; that may vary according to circumstances. But I do think in all cases, some plan should be adopted to keep away the Cattle just mentioned.

their dams were of the worst and most inferior kind. That the public therefore, might no longer be thus imposed on, I very soon determined to keep him entirely for my own use. And though while a yearling, he earned me so large a sum of money; and after I had made the restriction and his stock began to be seen, applications were made to me from various parts of the country, in some cases offering any sum that could be asked or given for the use of a bull; yet I have seen no cause sufficient to induce me to alter from my first determination; nor do I suppose I ever shall.

In districts where the tenantry themselves procure good cattle, there I should by no means advise the landlord to allow the neighborhood to send their cows to a bull of his own at an under price, if he possessed a valuable one; because this would have a tendency to damp the emulation of the tenantry among each other, and to deprive the most spirited and skillful among them of that reward they are so justly entitled to. One thing is very certain, that there is a greater desire for improved stock in the present day than was ever before known. Nor can we be at all surprised that this should be the case; for those who have had an opportunity of seeing the vast difference that is made in the return between good and bad animals, would naturally be very anxious for the former, though they may incur a little expense in the first establishment of a breed.

And here I cannot refrain from passing my highest encomium on the board of agriculture. The liberal premiums proposed by it, on various occasions, together with the enlightened experience of many of its members, have, and I trust will ever continue to be productive of the greatest good. When we behold men of the rank and opulence of its noble president* devoting so much of their time and attention to the public welfare; the inferior orders and middle classes of society, ought, surely never to think it too much to exert themselves on their own behalf. Such noblemen and gentlemen by their various experiments are continually discovering something new, and of importance: the experiments that fail, fall entirely on themselves; while those that succeed, are generously made known to the public at large. By their rank in life, they render the pursuit of agriculture respectable; and by their liberal assistance, they rouse many to a degree of exertion which is not unfrequently crowned with success.†

Whoever wishes to make himself acquainted with the value of fat and lean cattle exposed for sale, at the different markets and fairs in various parts of the country, cannot do better, than consult the *Farmer's Journal*. This is a publication indeed, that no agriculturist ought to be without. To a man of business, its trifling expense is soon repaid by the correct information he weekly receives of the prices of not only one kind of agricultural produce,‡ but of almost ev-

* The Right Honorable the Earl Hardwicke.

† I might here mention the aid afforded to the improvement of stock, by the various exhibitions in almost every part of the country, established either by the munificence of distinguished individuals, or the joint contribution of the respective members—in most of which societies, we generally perceive the nobility and gentry of the neighborhood come forward in such a way, as does them the highest credit.

‡ The concluding page of each journal contains a list of the prices of all kinds of corn, seeds, meat, hay,

every description whatever; by which means he will be enabled to adopt the more prudent measures, as to such articles, as he himself may have to dispose of. It contains moreover a fund of information, on practical subjects, belonging to agriculture, from the joint contribution of the most scientific men of the day. To mention the signatures of Sir John Sinclair, Mr. Hall, Mr. Blakie, and Mr. John Elman, Jr. might alone suffice; but to these, if need be, many more of the first note, could be easily added—the whole being arranged and corrected under the inspection of an intelligent editor.

I have only to add again in conclusion, how much real pleasure it has given me, to have received the approbation of so many intelligent men; and most sincerely wish that my "remarks" were still more worthy of their attention. And I can assure all, if specimens of cattle please them better than description, that they are extremely welcome to the sight of any, or the whole of mine, at any part of the year.—For as I never make a point of forcing them by extra keeping, I am quite regardless of the time they are shewn. The improvement of the stock of the country, indeed, is a subject of such vast importance, that it can never be made too clear; and on this account, I shall always be happy, to adopt every means in my power, to facilitate so great an object.

Should this pamphlet fall into the hands of any, who have been waiting for heifers from me, and have thought themselves neglected by not receiving them so early as they might imagine; I have only to assure them that it has arisen from others, who have given a prior order, either taking more than I at first expected, or putting in their claim for a second supply: and that every attention has, and will continue to be paid, to serve all as soon as possible. I ought perhaps here to mention generally, that from the great demand I have, my plan has been, if any one applies at a time, when I am unable to spare any, to make a memorandum of the application, if wished; and then to send word as soon as I have such to part with, as are likely to suit.

From this demand too, my bulls and bull calves are disposed of at all times of the year; several of the bulls are frequently sold or relet in September, soon after their return from former engagements; and many of the bull calves often disposed of during the first summer, that is, as soon as they have been well reared and are ready to send off. The plan that many have adopted therefore, that live at a distance, is to write to me to know if they can be supplied with a bull calf, or heifers; and if not, how soon they can. In which case I describe what I have, if any to part with at the time, what are coming forward, and how soon they will be ready; so that by this means, they have the trouble of one journey only. Perhaps no gentleman, who takes this plan, will think it too much to pay the postage; for though the expense of each letter is but trifling, yet from the number I receive, it would soon amount to a considerable sum. Some who live at a great distance and have seen the cattle I have sent to neighboring places, have left the selection en-

straw, &c. both in London and also in the most important of the country markets. Nor is it of small moment, that if there be a sudden rise or depression of the various articles, the cause is generally adverted to

tirely to me; but though I have had the pleasure of finding, that those I have sent have given great satisfaction, yet I very far prefer, wherever it is practicable, that all should make choice for themselves. And I should still recommend but a small number at first, not merely on account of my own convenience, owing to the demand I have; but because persons have then an opportunity, at no vast expense, of seeing whether they are the kind of animal they wished for—and as I have before said, conviction which arises from experience, is always greatly to be preferred. To me however, it has been highly gratifying to find, that in so many cases, where they have once been established, a fresh supply has so soon been wished for. I think therefore, a bull and one or two heifers might suffice in most places at first, where the trial is made; and in some, a young bull only.

From the American Farmer.

CEMENT.

However valuable Mr. Skinner's paper continues to be, I find all his receipts are not infallible; particularly that on ashes and salt, for cracks in stoves, as I find after drying, it crumbles off, and weeping eyes are again renewed, but if you add a portion of Plaster of Paris with a little iron filings, it will produce a substantial cement, and the lustre of your eyes be preserved from the great annoyance of smoke.

Philimor.

M. O.

From the American Farmer.

Answer to a "North Carolina Farmer."

The best preventives against fleas in hogs, lice in cattle, and ticks in sheep, are corn meal, and care. The best remedy for the evils they create, is a strong decoction of tobacco, obtained by boiling. Hickory ashes, thrown upon swine, not only assists in destroying fleas, but in removing cutaneous diseases, by causing the animals to rub themselves frequently.

CURWEN.

Philadelphia County, March 5th, 1823.

From the Connecticut Herald.

A few weeks since, an obituary notice of Mrs. Long, of Concord, N. H. went the rounds of the newspapers. Her death was occasioned by using sugar adulterated with white lead. She died with aggravated symptoms of *Colica Pictonum*, or Lead Colic. Since then a family in the same town, (Mr. J. Wheeler's,) have been severely afflicted in the same way, from the use of apple-sauce kept in earthen pans, glazed with red lead—the youngest member of the family has died. There is a notice of the case by Dr. Long, and a report by the central Medical Society, N. H. on the subject, in the *New-Hampshire Patriot*. Dr. Long gives the following as the history of the symptoms:—

"Among the first symptoms noticeable in this disease, are a tightness or uneasiness across the stomach and bowels, costiveness, faintness, giddiness, numbness in the extremities, pains shooting through the head, neck, back, and limbs, which are often thought to be rheumatick. And in the further progress of the disease, slight sickness of the stomach, thirst, anxiety, general languor, yellowness of the skin—and if not relieved, worse symptoms ensue; such as obstinate costiveness, a frequent but ineffectual desire to evacuate the contents of the bowels,

constant nausea and vomiting, violent pains in the stomach and bowels, with the sensation of their being knotted up and strongly drawn upward and back; epilepsy, delirium, palsy, strong convulsions, and death."

When a family or any member of it, is affected with such symptoms, they may suspect the action of lead poison, and ought to examine their food, drink, and utensils for cooking or containing them. They ought too, to make speedy application for medical assistance, as this is a case of peculiar obstinacy and danger. In the case above mentioned, the glazing of the pans was in part entirely destroyed, and the inside of the pans reduced to the state of clay. Lead is used in forming pewter vessels, in soldering tin ware, and in glazing earthen ware. White crockery is glazed with white lead; common brown ware with coarse red lead, or oxyd. Stone ware is glazed with salt, and is therefore not liable to these objections. Lead is easily corroded by any thing acid, such as wine, cider, pickles, preserves, and by oils, when rancid. These articles then contain the lead in solution, which may be detected by a solution of liver of sulphur, (*hydrosulphuret*), in the form of a black cloud or precipitate. Wines are often sweetened by sugar of lead, when *pricked* or acidified. This has been made a gainful, but most nefarious speculation. It has been one of the thousand guilty means of gathering wealth from the wretchedness of others. From the case of Mrs. Long, it appears that the same adulteration has been practised in sugar. Those who value their health, (and there is assuredly nothing of higher value, for one half of our moral evils are evil from their destroying health;) those who prefer a sound constitution to any momentary gratification or fancied convenience, ought to take care how they suffer this insidious poison to taint their food, and infect their luxuries. Let them remember, there may be "*death in the pot*." Copper is another poisonous metal. All copper and brass kitchen utensils should be used cautiously—and brass cocks ought in particular to be avoided in drawing off any acidulous liquor. Oils, too, act on copper, at least when rancid; and I have often witnessed the melted tallow on a brass candlestick colored a deep green.

Finesse.—Some workmen in Italy being on the point of hurling a stone from the roof of a house, called out to the persons passing to take care. A man going by, and neglecting the caution, was wounded by the fall of a stone; and summoning the workmen into a court of law, demanded damages. Pylæus, a lawyer of much eminence in the twelfth century, was employed as counsel for the workmen; and finding that there was no possibility of procuring evidence that his clients had called out to the passers by, he advised them how to act accordingly. When the trial came on, and they were interrogated by the Judge, and asked why they had hurled down the stone so carelessly? they made no answer. The Judge repeated his question, but still they were silent. The Judge appearing astonished at this, Pylæus informed him that his clients were unhappily deaf and dumb. "Nay," exclaimed the plaintiff, "that never can be, for I heard these very men cry out to every body take care." "If so," said Pylæus, "I have proved what was necessary; no damages can be awarded, and they must be acquitted."

THE FARMER.

BOSTON:—SATURDAY, MARCH 22, 1823.

TERMS OF THE FARMER.

Published every Saturday, at THREE DOLLARS per annum, payable at the end of the year—but those who pay within sixty days from the time of subscription will be entitled to a deduction of FIFTY CENTS.

A title-page and index will be furnished, gratis to those who take the whole volume.

Agents who procure seven subscribers, and become responsible for the payment, will be entitled to copy gratis, and in the same proportion for a larger number.

Complete files from the commencement of the paper in August can be furnished.

BREEDING OF CATTLE, &c.

We this day conclude Mr. Wilkinson's *Remarks on the Improvement of Cattle*, &c. which deserve not only to be read but to be studied, and his leading maxims impressed on the memory of every farmer who wishes to keep a good stock of cattle. We do not suppose that all his observations can be of immediate practical utility to American farmers in general, but we believe much benefit may be derived from them. The perusal of these remarks should merely induce to breed from our *best stock*, instead of slaughtering, selling the finest animals to butchers, and keeping the poorest to breed from, they will prove of very great value to American agriculture.

An error with regard to the breeding of cattle and other domestic animals has done much mischief in Great Britain, and been attended with some bad consequences in the United States. Mr. Lawrence, an English writer of eminence and general correctness, in a *Treatise on Cattle*, p. 27, says—"You may breed *FOREVER in-and-in*, or from the nearest affinities of blood, with the utmost success, provided you select, with judgment, the best shaped individuals; and the finest animals of this country have been bred in this mode." When we first read this sweeping maxim it struck us as something similar to that of the honest man, who declared that "chestnut rails would last *forever* *anever*, to his certain knowledge, for he had tried the experiment *out and out*, and never knew it fail in *all his life time*." We thought that the Law of Nature was averse to incestuous connexions, as well among brute as mankind. We consulted some scientific and practical agriculturists in this vicinity, and were informed that the best race of animals by *breeding in-and-in*, or cohabiting exclusively with their near relations, would speedily degenerate, the offspring become puny and sickly, and in time unable to breed at all. This was particularly the case with swine, as some persons had experienced to their cost. We also consulted Sir John Sinclair, whose authority we consider as pre-eminent in questions relating to improvements in agriculture; and found that he is pointedly opposed to the plan of confining the connexions of a superior breed of animals to the same family.

"This method," observes the worthy Baronet, "of breeding *in-and-in*, or putting animals of the nearest relationship together, was for some time in fashion, under the sanction of Mr. Bakewell's authority, yet experience has now proved, that it cannot be successfully persevered in. It may be beneficial, indeed, if not carried too far, in fixing any variety that may be thought valuable, but on the whole, it is only in appearance. Under this system the young animal comes into the world, on comparatively, a very small scale. By keeping it fat from the first moment of its existence, it is made to attain a greater size than nature intended; and its weight in consequence, will be very great, in proportion to the size of its bones. Thus a generation

of animals of an extraordinary form, and saleable enormous prices, may be obtained; but that does prove that the practice is eligible, if long persisted. On the contrary, if the system be followed up, the get tender and delicate, they become bad feed, and though they retain their shape and beauty, will decrease in vigor and activity, will become and dwarfish, and ultimately incapable of continuing the race. The instances of this are numerous. celebrated breeder, Prinsep, found, that decrease is unavoidable, in spite of all his endeavors, by ing his young stock well, to prevent it. Sir John bright tried many experiments by breeding in-and-th dogs, fowls, and pigeons, and found the breeds rily degenerate. A gentleman who tried the n with pigs, brought them at last into such a state, the females gave over breeding almost entirely, when they did breed, their produce was so small delicate, that they died as soon as they were born. Mr. Knight's experiments with plants have fully need him, that in the vegetable, as well as in the al kingdom, the offspring of a male and female, elated, will possess more strength and vigor, than e they are both of the same family. This proves unprofitable such connexions are. That is no u, however, why a breeder may not manage a ular family of animals to great advantage, by ing or changing, instead of breeding directly from ts to offsprings.

he breeding from different families, of the same e is therefore a preferable system. When these been for some time established in different situ- s, and have some slight shades of difference ssed upon them, by the influence of different cli- a, soils, and treatment, it is found advantageous, erchange the males, for the purpose of strength- the excellences, and remedying the defects of family. On this principle, the celebrated Cully ued, for many years, to hire his rams from Bake- at the very time, that other breeders were paying a liberal price for the use of his own; and the same practice is followed by the most skillful ers at present."

FARMER SUMMARY OF NEWS.

REIGN.—Accounts from the West Indies in- hat the party which attempted to revolutionize Riego, headed by Gen. Decoudray, and including aptiste Irvine among others, have been tried, con- d, and sentenced to thirty years imprisonment. have received nothing new since our last, on the t of hostilities between France and Spain. In g over the articles on this subject received by the l at N. York, which brought papers from London 30th Feb. we perceive some indications of Great n's interference either to prevent hostilities, or to the Spaniards in opposition to the coalition. It s that Mina, the famous Spanish general, has giv- advice, in case of invasion, to fight no great bat- out harass the invaders by partisan warfare, and em off in detail. If this advice should be follow- the Spaniards remain true to themselves, the oo of the coalesced despots will be as uncomforta- yed as "a toad under a barrow." They will de marks for invisible enemies to aim at, and ge, skill, or knowledge of military tactics will be y unavailing. No nation possessing a population b, or three millions of hardy and determined inhab- an can be subdued by any foreign force, if the war vverted into contests of posts and skirmishes, and vaded have fortitude enough to lay waste their v territory before the invaders, cut off their supplies, ad harass them by all the means which a superior o edge of the country must afford.

at Fire in Canton.—A most destructive fire has e occurred in Canton, in China. It commenced at 9 o'clock on the evening of the 1st Nov. and con- burning about two days. Upwards of 60 fac-

ories were consumed. The loss of the Chinese was immense. Upwards of eleven thousand buildings were burnt, together with 20,000 chests of black, and 10,000 of green teas. The Americans had a large amount at risk, (near two millions of dollars) but their loss was only about \$100,000. They were much in- debted to Com. Smith, in the service of the English East India Company for his friendly conduct on the oc- casion. The loss of the English East India Company was very great, and by them estimated at about a mil- lion sterling. Of the number of lives lost no cor- rect estimate can be obtained, but many must have perished. Numbers were said to be trampled to death in the streets, and the remains of several were discov- ered near the factories after the fire. A number of small footed women perished in the flames, many of whom, owing to the unnatural custom of compression, were crippled in their infancy.

Piracy.—The ship Aurora, of Greenock, from St. Thomas for the Bay of Honduras, was carried into Porto Rico Feb. 10th, by a privateer, and with her car- go condemned. On the 24th of the same month, about midnight, while lying in harbor, the Honor and Amy, Capt. Stone, of Newburyport, was boarded by six or seven pirates, who tied the hands of the captain and mate behind their backs, and threatened to kill them, if they did not tell where the money was—they then broke open the trunks, &c. took 700 dollars in money; the captain and mate's clothing, &c. They then wounded two of the men, who made such an outcry, that the pirates were fearful that they should be heard on shore, and thought best to flee.

Pirates.—Ten Pirates captured by the British sloop of war Tyne, and convicted at Kingston, in Jamaica, have been executed.

DOMESTIC.—*Fine Cattle.*—The N. Y. Commer- cial Advertiser mentions twelve extraordinary steers, fattened by Mr. Monmouth Purdy, of Scipio, Cayuga County. It was supposed they would weigh from 2500 lbs. to 3000 lbs. each. They were purchased by Mr. David Marsh, and Mr. Andrew C. Wheeler, of Fulton Market. One pair of these steers, for which the pur- chaser gave \$500, is judged to weigh 6000 lbs. When Mr. Purdy first went into the western part of N. Y. the cattle raised in that region, were considered rather inferior; but such has been his success in improving the breed, and in fattening and driving them, that the butchers are anxious to obtain their supplies from thence. The cattle were driven 6 miles per day; and the inhabitants of two of the villages on the way paid Mr. P. \$30 respectively, as an encouragement for per- severance in producing such extraordinary fine animals for the market.

Sporting Intelligence.—The celebrated horse Cock of the Rock, has arrived in town from Vermont, for the purpose of closing with the propositions of William Harrison, to run against a Virginia horse, on the Long Island course, for \$5,000, "play or pay," in the ensu- ing spring races—which will probably exhibit more matches, bets and forfeits than can be found on record from any one course in the sporting calendar.

N. Y. Statesman.

First Settlement of New-Hampshire.—A meeting of a Literary Society in Portsmouth have recommended the celebration of the completion of the two hundredth year from the settlement of New Hampshire. The ce- lebration is to be at Portsmouth, on Wednesday, the 23rd day of May next.

Fire in Providence.—On the 15th inst. a fire broke out in Mr. Williams' stable, north of Westminster Street, Providence. The stable, together with other buildings on the land, was quickly consumed or de- molished. A cow and two pigs were burnt, and two horses so much injured as to be of no value.

Fire in Philadelphia.—The extensive structure, the Hall of the Washington Benevolent Society, was con- sumed by fire on Monday last. Supposed to be the work of an incendiary.

A house was burnt at Raleigh, (N. C.) on Tuesday of last week, and an old negro woman, who was very aged and infirm, being unable to get out of the house in time, perished in the flames.

A serious riot is said to have taken place at New-Haven between the students of Yale College and the citizens. Two or three hundred students were engaged and proceeded to great lengths. Cause of the riot unknown.

Capt. Charles Morris has been appointed one of the Commissioners of the Navy Board, Vice Capt. Porter, resigned.

We learn with regret, (says the National Standard) that Mr. Frederick Hall who has so long and so faith- fully discharged the duties of the Professor of Mathe- matics and Natural Philosophy in Middlebury Col- lege, Vt. has resigned his office; but it is expected that he will continue his useful labors in the Institution un- til the next commencement.

At the Supreme Court, now sitting in Newport, Ed- mund Briggs and Edmund Briggs, jr. father and son, have been tried and found guilty of manslaughter.

Loss of the Steam Boat Tennessee.—It seldom falls to our lot to record so melancholy an event as the loss of this boat, which plunged more than 50 persons into a watery grave. The boat with 176 passengers, which were subsequently augmented to 196, left New Or- leans for Louisville, Feb. 2d. In the night of the 6th, being 130 miles miles above Natchez, the boat struck a log, and was so shattered that it sunk in five minutes. The night was dark, boisterous, cold and snowy. An attempt was made to carry the steam boat to the shore, but the water entered so fast, that it was in vain. Capt. Campbell made every effort which circumstances would permit, to save the passengers and crew, and it was greatly owing to his exertions that so many reached the shore in safety. Upwards of 50 persons perished in the water, many of whose names are un- known.

PRICES OF COUNTRY PRODUCE, &c.

[Revised and corrected every Friday.]

		FROM	TO
	D. C.	D. C.	D. C.
ASHES, pot, 1st qual.	ton.	147 00	150 00
pearl do.		157 00	160 00
BEANS, white,	bush	1 00	1 10
BEEF, mess, 200 cwt.	bbl.	9 50	10 00
cargo, No. 1.		8 50	9 00
No. 2.		6 50	7 00
BUTTER, inspect. 1st qual.	lb.	15	16
2d qual.		12	13
small kegs, family,		16	17
CHEESE, new milk		7	9
FLAX		4	9
FLAX SEED	bush	90	1 00
FLOUR, Baltimore, superfine,	bbl.	7 50	7 62
Genessee		7 50	7 75
Rye, best		4 50	5 00
GRAIN, Rye	bush	80	85
Corn		67	70
Barley		63	65
Oats		45	45
HOGS' LARD, 1st sort	lb.	9	
HOPS, No. 1.		10	12
LIME,	cask	1 25	1 50
OIL, Linseed, American	gal.	65	70
PLASTER PARIS	ton.	3 00	3 25
PORK, Navy Mess	bbl.	12 00	12 50
Bone Middlings		14 00	14 50
Cargo, No. 1.		12 00	12 50
Cargo, No. 2.		11 00	11 50
SEEDS, Herd's Grass	bush	2 25	2 50
Clover	lb.	5	9
WOOL, Merino, full blood, washed		50	60
do. do. unwashed		40	45
do. 3-4 washed		45	47
do. 1-2 do.		40	45
Native	do.	35	40
Pulled, Lamb's, 1st sort		55	60
do. Spinning, 1st sort		47	50
PROVISION MARKET.			
BEEF, best pieces	lb.	8	10
PORK, fresh		6	8
VEAL,		6	9
MUTTON,		5	7
POULTRY,		7	12
BUTTER, keg & tub		16	17
lump, best		20	22
EGGS,	doz.	14	18
MEAL, Rye,	bush	25	30
Indian,		30	35
POTATOES,		27	
CIDER, liquor,	bbl.	1 50	
HAY, best,	ton.	20 00	24 00

BY F. G. FESSENDEN.

RURAL PEACE AND INDEPENDENCE.

That man is fortunate, who timely wise,
Lives peaceful blessings can discern and prize,
Who ne'er his talents, wealth nor time employs,
In quest of costly and tumultuous joys;
Nor churlishly refuses to partake
Of God's good things, created for his sake,—
Spurning the gifts of Deity design'd
To cheer and bless the lot of human-kind—
With some good books, some good companions blest,
"Health in his veins, and quiet in his breast,"
Aloof from scenes of riot, noise and strife,
Enjoys the comforts of a rural life.
Him no anxiety, no fears appal;
He ne'er submits to "low ambition's" thrall,
Ne'er condescends a falsehood to impart,
But makes his tongue the herald of his heart—
Ne'er stoops to high, nor spurns at low degree,
His manners still from affectation free,
He never masks grim malice with a smile,
Nor makes hypocrisy the guise of guile.
Though sometimes blunt, he always is sincere,
And what he is, is willing to appear.
Though no rich labors of a foreign loom,
Nor costly paintings decorate his room,
Light, but sound slumber, softly seals his eyes,
That boon of innocence and exercise,
Which monarchs covet, but cannot enjoy,
Sweetly rewards his every day's employ.
Health tempers all his cups, and at his board
Reign the cheap luxuries his fields afford.
Seen from the eylet-holes of his retreat,
High life appears a bubble and a cheat;
He marks the many who to ruin run,
Knaves who undo, and fools who are undone,
Some by a sordid thirst of gain control'd,
Starve in full stores, and cheat themselves for gold,
Others devour ambition's glittering bait,
Striving to gain the dignities of state,
Much harder, and more dirty work go through
Than farmers can be call'd upon to do;—
Beholding these, is thankful that his lot
Gives peace and freedom in a country cot.

From the New York Statesman.

CULTIVATION OF TEASELS.

As the season is approaching when the spring planting will commence, I have presumed through the medium of your excellent paper, which I observe is devoted to every subject that can subserve the interest of the agriculturist, merchant, and manufacturer, to call the attention of the former, to the growth of the cardicia fullonium, or fuller's teasels.

They are employed for raising the nap on woollen cloth, and no other material can be used as a substitute. It is a biennial plant, and there is some uncertainty in obtaining a crop; but when planted in a suitable soil and properly cultivated, the chance is three to one in favor of a successful result. The crop, in England, is sometimes fourteen or more packs to the acre, and at other times scarcely any. When cut they are sorted into three different kinds—into kings, middlings, and scrubs—they are then made into packs, the kings containing nine thousand, the middlings twenty, the third or scrubs, are not considered as of any value.

The demand for teasels in this country is already considerable, and is daily increasing. Some manufacturers are now consuming more

than three hundred thousand per annum. Supposing that ten packs were the produce of an acre of land, and the market price were only twenty-five cents per hundred, the cultivator would realize from the acre four hundred and seventy-two dollars and fifty cents; deduct from this for rent, labor, &c. and it will be seen that no other crop can prove so profitable to the farmer.

"The soils most adapted to the growth of this plant, are those of the more strong and deep kinds; but which are not too rich, as loamy clays, and such as have strong marly bottoms, and are fit for the growth of wheat crops."

"The most favorable situations are those that are rather elevated, open, and inclined a little to the south, and the higher grounds, particularly where the country is inclosed, are the most advantageous."

"For the preparation of the ground, where it is a lea, it should be ploughed up deeply in the early part of the year; and where it is inclined to moisture, it should be executed in narrow ridges of not more than three bouts each."

"In providing the seed, it should be constantly taken from such plants as are the most perfect of their kind, and the most productive in heads. It should be suffered to remain till it becomes perfectly ripened, and be used while fresh."

"From one to two pecks are sufficient for an acre, some use three."

"The crop should be put in as early as the spring will permit. The common method is to broadcast, it being sown after the manner that is practised for turnips. Before sowing, the land should be well harrowed down, in order to afford a fine state of mould as a bed for the seed."

"The land should be kept clean from weeds, the plants should be hoed out so as to leave them twelve inches apart, and have them well earthed up. When the blossoms fall the plants are ripe, and in a state to be cut and secured. They should be cut with about nine inches of stem, and tied up in handfuls with some of the stems. On the evening of the day on which they are cut, they should be put in a dry shed, and should be exposed to the sun daily in clear weather, till they become perfectly dry; they should then be sorted and kept in a dry loft."

Having given an account of the manner of raising this plant in England, I shall offer some remarks on the mode of cultivating it in this country.

Those who cultivate them here, are not sufficiently attentive to the quality of the seed. Instead of taking it from fine heads, that have been permitted to ripen, they collect it promiscuously from those that have been collected for sale. As the teasel is cut for use when the blossom falls before the seed is ripe, the plants cannot be so vigorous as when taken from those heads which have been permitted to ripen.

The choosing of a genial soil, and situation, together with keeping the crop clean from weeds by good hoeing, is generally neglected by our farmers; all of which appear to be essentially necessary to insure a productive crop.

Those who cultivate them in this country, sow the seed in beds and transplant them in the fall. This system is highly objectionable, and is no doubt the principal cause of the frequent failure of the crop. The growth of the plants is checked by being transplanted, the

roots will not descend to the same depth in soil, and the winter comes on before they have recovered their pristine vigour; hence cause of the plants being destroyed either partially, or altogether during the winter season.

Last year our crop was generally destroyed and had not a supply been obtained from England, the woollen manufacturers would have been much injured. In that country the crop is usually more or less productive, but owing to the moisture of the climate, is often of little value. This was peculiarly the case with the year 1822. When the crop failed in last summer, manufacturers and merchants imported to supply the demand, but most of them were brought in, having been brought there by persons totally unacquainted with the article, the damaged teasels of the crop of 1822 were sent out, which have proved a dead loss to manufacturers who purchased them. I have seen only one lot that can be considered a prize article, and those were bought of Messrs. Di Bethune and Co.

As this country appears to be destined to become the seat of manufactures, it would well for our agriculturists to turn their attention to the raising of such crops as will supply the new demands thereby created. It would require more than sixteen thousand acres to raise all that is wanting for the present woollen establishments, and the demand will be annually increasing. Should you consider this article worthy an insertion, it may encourage me to send you other essays relative to the raising of articles now imported.

A MANUFACTURE
of Columbia Cloth.

The Unnatural Son.—A certain farmer in Connecticut, possessing a small estate, was persuaded by his only son, (who was married, lived with his father,) to give him a deed of property. It was accordingly executed. The father began to find himself neglected—removed from the common table, to a block the chimney corner, to take the morsel of reluctantly given him—at last, one day the natural son resolved to try once more to break the heart of his sire. He procured a block and began to hollow it. While at work he was questioned by one of his children what he was doing. "I am making a trough for your grandfather to eat out of," was the reply. "I says the child, 'and when you are as old as your grandfather, shall I have to make a trough for you to eat out of?'" The instrument being used fell from his hand—the block was cast into the fire—the old man's forgiveness asked, he was restored to the situation his age and worth entitled him.

Sailing Carriages.—A machine, invented by a gentleman of Christ-College, Cambridge, was lately tried at New Market. In shape it was nearly that of an isosceles triangle, and it moved with the broad end forward, on four wheels. It has a boom thirty-two feet long, and an exceeding high mast. It will carry 12 persons at the rate of thirty miles an hour. To the axle of the hinder wheels is fixed a rudder. It can go on a wind, and tack as a vessel at sea, and is capable of being so correctly guided, that a pilot at pleasure can run the wheels over a stone.—*London Mag.*

NEW ENGLAND FARMER.

PUBLISHED BY THOMAS W. SHEPARD, ROGERS' BUILDINGS, CONGRESS STREET, (FOURTH DOOR FROM STATE STREET.)

VOL. I. BOSTON, SATURDAY, MARCH 29, 1823.

No. 35.

CATTLE SHOW,

Exhibition of Manufactures, Ploughing Match, and Public Sale of Animals and Manufactures, at Brighton, Mass. on Wednesday and Thursday, the 15th and 16th of October, 1823, to commence at 9 o'clock, A. M. on each day.

The Trustees of the Massachusetts Society for the Promotion of Agriculture, encouraged by the patronage of the Legislature of this State, intend to offer in Premiums, not only the sum granted by the Government for that purpose, but also the whole amount of the income of their own funds. They, therefore, announce to the public, their wish to have a CATTLE SHOW, and EXHIBITION OF MANUFACTURES, &c. &c. at Brighton, on Wednesday and Thursday, the 15th and 16th of October, 1823; and they offer the following PREMIUMS:

FOR STOCK.

For the best Bull, raised in Massachusetts, above one year old	\$30
For the next best do. do.	20
For the next best do. do.	10
For the best Bull Calf, from 5 to 12 months old	15
For the next best do. do.	10
For the next best do. do.	5
For the best Cow, not less than three years old	30
For the next best do. do.	20
For the next best do. do.	15
For the best Heifer, from one to three years old, with or without calf	15
For the next best do. do.	10
For the next best do. do.	7
For the best Ox, fitted for slaughter, regard to be had to the mode and expense of fattening	30
For the next best do. do.	25
For the next best do. do.	15
For the best pair of Working Oxen	30
For the next best do. do.	25
For the next best do. do.	20
For the next best do. do.	15
For the next best do. do.	10
For the best pair of Spayed Heifers, not less than one year old	25
For the best Spayed Sows, not less than four in number, and not less than five months old	20

The claimant to be entitled to either of these two last premiums, must state, in writing, the mode of operation and treatment, in a manner satisfactory to the Trustees.

For the best Merino Wethers, not less than six in number, having respect to form and fleece	15
For the next best do. do.	8
For the best Native Wethers, not less than six in number do.	10
For the next best do. do. do.	5
For the best Merino Ram, do.	15
For the next best do.	10
For the best Merino Ewes, not less than five in number, do.	20
For the next best do. do. do.	10
For the best Boar, not exceeding two years old	12
For the next best do. do.	8
For the next best do. do.	5
For the best Sow	12
For the next best do.	8
For the next best do.	5
For the best Pigs, not less than two in number, nor less than four months old, nor more than eight	10
For the next best do. do.	5

None of the above animals will be entitled to premiums, unless they are wholly bred in the State of Massachusetts.

For the best Ram which shall be imported into this State, after this advertisement, and before the 15th day of October next, of the improved Leicester breed of long woolled sheep or a gold medal of that value, at the option of the importer.

For the next best do. do.

For the best Ewe of the same breed, imported under the same terms, and for the like superior qualities

For the next best do. do.

To the person who shall import into this State, from Europe, a male and female Goat, of the pure Cashmere breed

The persons claiming these premiums to engage to keep the imported animals within the State.

No animal, for which to any owner one premium shall have been awarded, shall be considered a subject for any future premium of the Society, except it be for an entirely distinct premium, and for qualities different from those for which the former premium was awarded.

Any of the above Stock, when raised and still owned at the time of the exhibition, by the person who raised them, will entitle the claimant to an allowance of ten per cent. in addition. But Sheep, to be entitled to any of the above premiums, must be raised by the person entering them.

FOR AGRICULTURAL EXPERIMENTS.

To the person who shall raise the greatest quantity of Indian Corn on an acre, not less than seventy bushels

To the person who shall make the most satisfactory experiment, to ascertain the best mode of raising Indian Corn, whether in hills or rows, not less than half an acre being employed in each mode, in the same field, the quantity and quality both of land and manure to be equal and uniform in each mode; all to receive a cultivation requisite to produce a good crop

To the person who shall raise the greatest quantity of Vegetables, grain, peas and beans excepted, for winter consumption, of the stock on his own farm, and not for sale, in proportion to the size of the farm and stock kept, having regard to the respective value of said vegetables as food, stating the expense of raising the same, and the best mode of preserving the same through the winter

To the person who shall raise the greatest quantity of winter Wheat on an acre

To the person who shall raise the greatest quantity of spring Wheat on an acre

To the person who shall raise the greatest quantity of Barley on an acre, not less than forty-five bushels

To the person who shall raise the greatest crop of Millet on an acre, cut and cured for hay, the claimant giving evidence of the time of sowing, the quantity of seed sown, and the quantity of hay produced

To the person who shall raise the greatest quantity of Carrots on an acre, not less than six hundred bushels

To the person who shall raise the greatest quantity of Potatoes on an acre, not less than five hundred bushels

To the person who shall raise the greatest quantity of common Beets on an acre, not less than six hundred bushels

To the person who shall raise the greatest quantity of Parsnips on an acre, not less than four hundred bushels

To the person who shall raise the greatest quantity of Mangel Wurtzel on an acre, not less than six hundred bushels

To the person who shall raise the greatest quantity of Ruta Baga on an acre, not less than six hundred bushels

To the person who shall raise the greatest quantity of Turnips on an acre, not less than six hundred bushels

To the person who shall raise the greatest quantity of common Turnips, after any other crop in the same season, being not less than four hundred and fifty bushels

To the person who shall raise the greatest quantity of Onions on an acre, not less than six hundred bushels

To the person who shall raise the greatest quantity of Cabbages on an acre, not less than 25 tons weight, free from earth when weighed

To the person who shall give satisfactory evidence on 'Soiling Cattle,' not less than six in number, and through the whole season, together with a particular account of the food given, and how cultivated

To the person who shall make the experiment of turning in green crops as a manure, on a tract not less than one acre, and prove its utility and cheapness, giving a particular account of the process and its result

To the person who shall, by actual experiment, prove the best season and modes of laying down lands to grass, whether spring, summer or fall seeding be preferable, and with or without grain on different soils

To the person who shall raise the greatest quantity of dry Peas on an acre, not less than thirty bushels

To the person who shall raise the greatest quantity of dry Beans on an acre, not less than thirty bushels

To the person who shall give proof of having produced the largest quantity of dressed Flax, raised on half an acre, not less than two hundred and fifty pounds

To the person who shall take up in the season, on his own farm, the greatest quantity of good Honey, and shall at the same time exhibit superior skill in the management of Bees

For the best Cheese, not less than one year old, and not less in quantity than one hundred pounds

For the next best do. do.

For the best Cheese less than one year old

For the next best do. do.

To the person who shall prove to the satisfaction of the Trustees, that his mode of rearing, feeding and fattening neat cattle is best

For the best Butter, not less than fifty pounds

For the next best do. do.

For the next best do. do.

For the greatest quantity of Butter and Cheese, made between the 15th of May, and the 1st of October, from not less than four Cows, the quality of the Butter and Cheese, and the number of Cows to be taken into consideration, and specimens to be exhibited at the Show, of not less than twenty pounds of each, and the mode of feeding, if any thing besides pasture was used

To the person who shall prove by satisfactory experiments, to the satisfaction of the Trustees, the utility and comparative value of the cobs of Indian Corn, when used with or without the grain itself, ground or broken

For the best specimen of Cider, not less than one barrel, made in 1822, manufactured by the person who shall exhibit the same, and from apples grown on his own farm

For the second best barrel

[These premiums will be continued in future years. Persons claiming them must state, in writing, their process of making and managing their Cider, and the kind of apples used.]

For the best specimen of Currant Wine, not less than one gallon, exhibited by any person who

shall have made not less than 30 gallons in the same season in which that which shall be exhibited was made, (a statement to be given, in writing, of the process of making the same) 10
For the next best do. do. 5

To entitle himself to either of the Premiums for Grain or Vegetable crops, the person claiming, must cultivate a tract of at least one acre in one piece, with the plant or production for which he claims a premium, and must state, in writing, under oath of the owner, and of one other person, (accompanied by a certificate of the measurement of the land by some sworn surveyor,) the following particulars:

1. The state and quality of the land, in the spring of 1823.
2. The product and general state of cultivation and quantity of manure employed on it the year preceding.
3. The quantity of manure used the present season.
4. The quantity of seed used, and if Potatoes, the sort.
5. The time and manner of sowing, weeding, and harvesting the crop, and the amount of the product, ascertained by actual measurement, after the whole produce for which a premium is claimed, is harvested, and the entire expense of cultivation.

And in relation to all vegetables, except Potatoes, Onions, and common Turnips, the fair average weight of at least twenty bushels must be attested; and if there be hay scales in the town in which raised, not less than three average cart loads must be weighed.

The claim under this head, together with the evidences of the actual product, must be delivered, free of expense, to Benjamin Guild, Esq. in Boston, Assistant Recording Secretary of this Society, on or before the first day of December next—the Trustees not intending to decide upon claims under the head of Agricultural Experiments, until their meeting in December.

FOR INVENTIONS.

To the person who shall use the Drill Plough, or Machine, and apply it most successfully to the cultivation of any small Grains or Seeds, on a scale not less than one acre \$20
To the person who shall invent the best Machine for pulverizing and grinding Plaster to the fineness of twenty-five bushels per ton, and which shall require no more power than a pair of oxen or horse, to turn out two tons per day, and so portable that it can be removed from one farm to another without inconvenience 30
To the person who shall produce, at the Show, any other Agricultural Implement, of his own invention, which shall, in the opinion of the Trustees, deserve a reward, a premium not exceeding twenty dollars, according to the value of the article exhibited 20

In all cases proofs must be given of the work done by the Machine, before it is exhibited; and of its having been used and approved by some practical farmer. Persons who have taken out Patents for their inventions, are not thereby excluded from claiming any of the above premiums.

FOR FOREST TREES.

For the best plantation of White Oak Trees, not less than one acre, nor fewer than one thousand trees per acre, to be raised from the acorn, and which trees shall be in the best thriving state, on the first of September, 1823 \$100
For the best plantation of White Ash, and of Larch Trees, each of not less than one acre, nor fewer than one thousand trees per acre, to be raised

from the seeds, and which trees shall be in the best thriving state, on the first of Sept. 1823.

For the best Live Hedge made of either the White or Cockspur Thorn, planted in 1820, not less than one hundred rods, and which shall be in the best state in 1823

To the person who shall have planted out on his farm, since the spring of 1815, the greatest number of Apple Trees, not less than one hundred in number, and who shall exhibit to the Trustees, at the Show in 1827, satisfactory evidence of his having managed them with care and skill

FOR DOMESTIC MANUFACTURES.

To the person or corporation who shall produce the best specimen of fine Broadcloth, not less than 1 5-8 yards wide, exclusive of the list, forty yards in quantity, and dyed in the wool \$20
For the second best do. do. do. 15

For the best superfine Cassimere, not less than 3-4 yard wide, nor less than forty yards in quantity 12
For the second best do. do. do. 8

For the best superfine Sattinet, 3-4 yd. wide, not less than 50 yards 8
For the second best do. do. do. 5

For the best Sole Leather, not less than five sides 10
For the second best do. do. do. 5

For the best dressed Calve Skins, not less than twelve in number 10
For the second best do. do. do. 5

FOR HOUSEHOLD MANUFACTURES.

For the best Woollen Cloth, 3-4 yard wide, not less than twenty yards in quantity \$12
For the second best do. do. 8

For the best double milled Kersey, 3-4 yard wide, not less than twenty yards in quantity 12
For the second best do. do. 8

For the best Coating, 3-4 yd. wide, not less than 20 yards in quantity 8
For the second best do. do. 6

For the best Flannel, 7-8 yd. wide, not less than 45 yds. in quantity 10
For the second best do. do. 7

For the best yard wide Carpeting, not less than 30 yards in quantity 15
For the second best do. do. 7

For the best 5-8 yard wide Stair Carpeting, not less than 30 yards in quantity 10
For the next best do. do. 7

For the best pair of Blankets, not less than 8-4 wide and 10-4 long 6
For the second best do. do. 4

For the best Woollen Knit Hose, not less than 12 pair in number 5
For the second best do. do. 3

For the best Worsted Hose, not less than 12 pair in number 5
For the second best do. do. 3

For the best Men's Half Hose, (woollen) not less than 12 pair in number 4
For the second best do. do. 2

For the best Men's Woollen Gloves, not less than 12 pair in number 5
For the second best do. do. 3

For the best Linen Diaper, 5-8 yard wide, not less than 30 yards in quantity 5
For the second best do. do. 3

For the best yard wide Diaper, (for table linen) not less than 30 yards in quantity 10
For the second best 5

For the best specimen of Sewing Silk, raised and spun in this State, of good fast colors, not less than one pound 5
For the second best do. do. 3

For the best Linen Cloth (for shirting or sheeting,) one yard wide, and twenty-five yards long 8
For the second best do. do. 4

To the person who shall produce the best specimen of any Cotton fabrics in private families, not less than five pieces 20

All the above Manufactures, (except when of Cotton) must be of the growth and manufacture of the State of Massachusetts. And all Manufactures, when presented, must have a private mark, and any public or known mark must be completely concealed, so as not to be seen, or known by the Committee, nor must the Propri-

etors be present when they are examined; in default of either of these requisitions, the articles will not be deemed entitled to consideration or premium.

Animals, Manufactures, or Articles, may be offered for premium at Brighton, notwithstanding they may have received a premium from a County Agricultural Society.

It is understood, that whenever merely from a want of competition, any of the claimants may be considered entitled to the premium, under a literal construction, yet if, in the opinion of the Judges, the object so offered is not deserving of any reward, the Judges shall have a right to reject such claims. Persons to whom premiums shall be awarded, may, at their option, have an article of Plate, with suitable inscriptions, in lieu of money. Premiums will be paid within ten days after they shall be awarded.

That in any case in which a pecuniary premium is offered, the Trustees may, having regard to the circumstances of the Competitor, award either one of the Society's gold or silver medals in lieu of the pecuniary premium annexed to the several articles.

That if any competitor for any of the Society's premiums shall be discovered to have used any disingenuous measures, by which the objects of the society have been defeated, such person shall not only forfeit the premium which may have been awarded to him, but be rendered incapable of being ever after a competitor for any of the Society's premiums.

All premiums not demanded within six months after they shall have been awarded, shall be deemed as having been generously given to aid the funds of the Society.

PLOUGHING MATCH.

On the second day of the Cattle Show, viz. the 16th day of October, Premiums will be given to the owners and ploughmen of the three Ploughs, drawn by two yoke of oxen, and to the three Ploughs drawn by one yoke of oxen, which shall be adjudged, by a competent Committee, to have performed the best work, with least expense of labor, not exceeding half an acre to each plough. Notice will be given in the public Papers, at least six weeks before said day, that a piece of ground has been provided for twenty ploughs—ten double and ten single teams; and that entries may be made of the names of the competitors until the morning of the 16th. Preference will be given to those who enter first; but if, on calling the list at the hour appointed, precisely, those first named do not appear, the next in order will be preferred. There will be two Committees, of three persons each—one to be the judges of the ploughing by the double teams, the other of the ploughing by the single teams—the latter to have assigned to them a part of the field distinct from that of the double teams.

Premiums as follows, (being the same for the double and single teams.)

First Plough	\$15	Second Plough	\$10	Third Plough	\$6
Ploughman	8	Ploughman	5	Ploughman	3
Driver	4	Driver	3	Driver	2

In each case, if there be no Driver, both sums to be awarded to the Ploughman.

The persons intending to contend for these Prizes, must give notice, in writing, to S. W. POMEROY, or GORHAM PARSONS, Esqrs. of Brighton. The competitors will also be considered as agreeing to follow such rules and regulations

may be adopted by the Committee, on the subject. The ploughs to be ready to start at 9 o'clock, A. M.

The result of the last Ploughing Matches at Brighton, and the satisfaction expressed by so many of their agricultural brethren, will induce the Society to continue these premiums annually, in connexion with the Cattle Show, as an efficacious means for exciting emulation and improvement in the use and construction of the most important instrument of agriculture.

Persons intending to offer any species of stock for premiums, are requested to give notice thereof, either by letter (post paid) stating the article, or to make personal application to Mr. JONATHAN WISSHIP, at Brighton, on or before the 14th day of October, and requesting him to enter such notice or application, so that tickets may be ready at 9 o'clock on the 15th. No person will be considered as a competitor, who shall not have given such notice, or made such application for entry, on or before the time above specified.

All articles of manufactures and inventions, must be entered and deposited in the Society's rooms, on Monday the 13th of October, and will be examined by the Committees on Tuesday, the 14th, the day before the Cattle Show; and no person but the Trustees shall be admitted to examine them before the Show. The articles exhibited, must be left till after the Show, to the satisfaction of the public.

The applicants will be held to a rigid compliance with this rule relative to entries, as well as to the other rules prescribed.

The examination of every species of stock, except working oxen) will take place on the 14th; and the trial of Working Oxen, and Ploughing Match, on the 16th of October.

The Trustees also propose to appropriate, the second day of the Cattle Show, their rooms for the public sale of any Animals, that have been offered for premium, and also of any others, that are considered by them, as possessing fine qualities; and their Halls for the public sale of Manufactures. Both sales to take place at half past eleven o'clock, precisely. And for all Animals or Manufactures, that are intended to be sold, notice must be given to the Secretary, before ten o'clock of the 16th. Auctioneers will be provided by the Trustees.

By order of the Trustees,

R. SULLIVAN,
J. PRINCE,
G. PARSONS,
E. H. DERBY, } Committee.

January, 1823.

ORIGINAL COMMUNICATIONS.

FOR THE NEW ENGLAND FARMER.

TO PRESERVE BACON AT ALL SEASONS AND IN ALL PLACES.

MR. EDITOR—You have published in your valuable "New England Farmer," several methods for preserving smoked meats. It seems none of them have perfectly well answered the purpose; and the numerous methods prescribed give the evidence that none of them have succeeded satisfactorily. Much experience has enabled me to offer you a prescription on the subject that never has and never will fail of answering the purpose, viz. *preserving those meats free from the ravages of all small animals, and safe and sound for any length of time, and in any*

climate. It is the use of CHARCOAL. The nature of this material is well understood by Chemists, and its properties and effects fully explained. My mode of putting down any kind of smoked meats, is thus: Take a tierce or box and cover the bottom with charcoal, reduced to small pieces, but not to dust; cover the legs or pieces of meat with stout brown paper, sewed around so as to exclude all dust; lay them down on the coal in compact order, then cover the layer with coal, and so on until your business is done, and cover the top with a good thickness of coal.

The use of charcoal, properly prepared in boxes, is of great benefit in preserving fresh provisions, butter and fruits, in warm weather; also in recovering meats of any kind, when partially damaged, by covering the same a few hours in the coal. Let those whose situation requires it, make the experiment on any article of food subject to decay, and they will more than realize their expectations.

SPRING WHEAT, AND THE BEST PREVENTIVE AGAINST SMUT.

This is a most valuable crop, and may be raised on almost any soil and in every part of the Commonwealth, free of smut. The numerous failures in this crop arise chiefly from bad or unskilful management. I have raised this kind of wheat for the last thirty years, and have never failed of having a good crop, and often very productive. My method is thus: If I propose to sow wheat on sward land, I cause it to be broken up during the preceding autumn—early in the spring as the season will allow, harrow the land thoroughly and cross plough it. I then usually cart out proper manure, and spread it from the cart over the whole surface, in quantity as the soil may demand. I then immediately sow on the wheat, and plough it in shallow. If the land is to be laid down for grass, sow the seed immediately after the wheat and plough it in, or immediately after the wheat is ploughed in, as you please, and harrow down the whole thoroughly; first with the furrows and then across the furrows—after four or five days pass a roller over the land and lay it smooth. It is all important to have this operation commenced and finished as early in the spring as possible. But the most essential part of the process is to prepare the Wheat for sowing. The only successful course is, to prepare the seed about ten days before sowing time. This is done by selecting clean and plump seed, passing it through water in a tub, about half a bushel at a time, and washing it and skimming off all matter that floats, then empty it into a basket to drain, then lay it on a clean floor and rake in two quarts of slacked lime and one quart of plaister to the bushel, and if too dry sprinkle on water and continue to stir it until all is covered with the lime and plaister. In this way you may proceed until you have prepared your whole seed. Let it remain in a heap one day, then spread it, and move it daily, until it becomes perfectly dry; it is then fit to sow, and you may sow it if the land should happen to be quite wet. The quantity of Wheat to an acre should be one bushel and twenty quarts. In the process of sowing you may not be able to apportion your seed exactly to the acre; therefore when you have sowed and ploughed in the quantity proposed for the acre, you may gather all that remains with the lime and plaister, and sow it on to the whole piece of land, passing

across the furrows. This will make it even, and cause a very equal distribution of the seed, which may then be harrowed. After the Wheat has come up three or four inches above the ground, sow on one bushel of plaister to the acre, or house ashes equivalent, as you please, or leached ashes, increasing the quantity.—When the Wheat begins to head, examine it, and if you find cockle, rye, oats, &c. mixed and growing, take care carefully to weed out all, so as to leave the field clean and of pure Wheat. At harvest, cut it a little before the kernel becomes hard, and set it up in the field in small stacks to cure, and remove it under cover after it is dry, and the kernel hard. This process will give you more and better flour than if managed in any other way. **BERKSHIRE.**

FOR THE NEW ENGLAND FARMER.

MR. EDITOR—In your paper of the 15th inst. page 258, you wish to be informed what sort of land I raised my turnips on by ploughing in the dews. It was a coarse gravelly loam. The first time I ploughed it as deep as I could with one furrow, I should think 10 inches. Afterwards, I meant to plough about six inches. My reason for ploughing deep the first time, was to open and lighten the earth, so that its vapors may arise, and unite with the dampness of the dew in the night air. In a cool morning in the summer, the earth being hotter than the air, sends up its moist vapors from below; and the earth being loose by deep ploughing, the moisture ascends easier, and drought does not affect the land so much as after ploughing not so deep. The dew which is taken up contains a quantity of rich salts, which, when ploughed in and turned under the furrow, the richest part is retained under and in the furrow, when the moisture is again exhaled by the heat of the sun. My reasoning on the subject is this. In running cider through sand, you lose all the best spirit, which is left in the sand; and although it may dry through the furrow, when suitable weather comes, yet the food for plants will remain. All sorts of manure create moisture and retain dew. Plaister, and all kinds of stone, pulverized and sown on the land, collect the dew and retain it longer in the morning before it is taken up, and give time to plough later in the morning, and save the richness of the dew. Ashes, burnt clay, frozen clay, all have a tendency to retain dew; and many more things may perhaps be discovered yet unknown.

Yours, &c.

WALLIS LITTLE.

Townsend, March 21, 1823.

MR. Jabez Rowe of Sandy Bay, Gloucester, and Mr. Hall of this city, have invented a new method of manufacturing Isinglass of superior quality from *hake sounds*. The inventors have in operation, an extensive manufacturing establishment at the first mentioned place, and the Isinglass received from this manufactory is preferred by Boston and New York brewers, to that imported from Russia.

Seasoning Glass.—Place the glass in a vessel of cold water, and heat the water gradually till it boils. Glasses of every description, thus prepared, will afterwards bear boiling water poured on them without injury.

HAMPSHIRE, FRANKLIN, AND HAMPDEN AGRICULTURAL SOCIETY.

The Executive Committee of the Hampshire, Franklin, and Hampden Agricultural Society have awarded the following premiums for agricultural experiments made during the last season—

To Charles Starkweather, Esq. of Northampton, the society's first premium for the greatest quantity of corn raised on an acre, being ninety-two bushels; measured Nov. 7, 1822—\$15.00.

To the Rev. Doct. Lyman, of Hatfield, the second premium for the next greatest quantity raised on an acre, eighty-two bushels and one pint; measured Feb. 10, 1823—\$12.00.

To Joseph Lyman Partridge, of Hatfield, the 3d premium for the next greatest quantity raised on an acre, seventy-five bushels; measured Feb. 10, 1823—\$10.00.

To Samuel Buffinton, Esq. of Worthington, the society's first premium for the greatest quantity of flax and flax seed raised on an acre and twenty-seven rods;—seventeen bushels and 18 quarts of seed, and four hundred and eighty-nine pounds of flax, dressed clean—\$10.00.

The mode of culture is stated as follows:

Mr. Starkweather states that his land was in the furrow in the spring of 1821; it had been turned up the autumn before. It had been for several years down to grass; it was harrowed with a common seed harrow, and planted in drills three feet apart; about eight or nine loads of common yard manure were put in the drills; the crop that year was fifty-eight bushels. In the spring of 1822, the stalks were cut, and burnt on the ground; nineteen loads of manure were then spread over it, and harrowed down smooth; it was then planted three feet wide, and two and a half apart, and eight loads of manure put in the hills; three ears of the largest yellow corn, were put in each hill. The land was low and subject to inundation, and was not planted until the last of May.

The Rev. Doct. Lyman states that his land was planted early in May, and the seed generally failed of sprouting, and was planted a second time near the last of May; many hills of the first planting entirely failed, and others partially; part of the field was materially injured by a late frost. The manner of planting was, that one half was planted in rows of the common width, and about a yard or two and a half feet between the hills; in the other half, the hills were about the common distance of planting; each hill was manured in the hole; the quantity of manure about eight common waggon loads; after the first hoeing each hill received a sprinkling of unleached ashes; the whole number of bushels was about six. The part of the field which was most closely planted was once suckered, and the suckers given to the cows; it was a rich soiling of two cows for about half the season, and afforded a three fold compensation for all the labor attending the process. At harvest the difference of the produce from the two parts of the field was inconsiderable. The portion which was not suckered, had a slight advantage; but the profit on the whole was greatly in favor of suckering on account of the ample, and rich feed, it afforded to two cows for many weeks. The land for many preceding years was improved about one half in mowing, and the other part in pasturing. In the autumn of 1821, the turf was turned with

the plough; in the spring following, it was effectually levelled with a seed harrow. The field was cultivated faithfully with the corn harrow and hoe; it was harrowed three times, and hoed four times. If there was any difference in the product of land which had been in pasture, or that which was mowed, the decision by the eye was in favor of that which had been mowed. Dr. Lyman further states that by long experience he is convinced, that unleached ashes are the best manure for corn, to be applied after the first hoeing, at the rate of from five to ten bushels the acre; he believes that they are indispensable for securing a good crop on land turned up from the sward, in order to prevent the ravages of worms. Like experience, has also convinced him, that the second year after turning up the sward, is by far the best for ensuring a large harvest of Indian corn; it sprouts better, it ripens sooner, and is more heavily loaded with fruitful ears. The corn which Doct. Lyman planted, was the twelve rowed corn—very large ears, the kernels closely compacted, and remarkably filled to the end of the cob; and when shelled a bushel weighed sixty-four and three quarters pounds—which exceeds the weight of common eight rowed corn nearly two pounds per bushel.

Major Buffinton states, that the land on which his flax was raised, was pasture land, broken up in the spring of 1821, and planted that year with potatoes; about sixteen loads of coarse barn yard manure were put in the hills; the potatoes were hoed twice and the land was not ploughed after the crop was harvested. There was no manure put on the ground last spring; it was ploughed twice and sowed the 2d day of May, with one bushel and twelve quarts of seed. The flax was pulled the 12th and 13th of August.

JOSEPH LYMAN, *President.*

PENNSYLVANIA AGRICULTURAL SOCIETY.

At the first Quarterly Meeting, held at Norristown, on the 11th of January, 1823, the following Resolutions were unanimously adopted:

That the President be authorized to petition the Legislature, for an Act of incorporation for this Society, and for such a modification of the Act, entitled an "Act for the promotion of Agriculture, &c." as shall authorize its officers to receive from the Commissioners of

Counties Dollars, and to perform their duties as effectively, as if the Pennsylvania Agricultural Society had been organized, in conformity with the sections of said Law—and that he shall endeavor to obtain some provision by which the sale of Spiritous Liquors shall be effectually prevented within the distance of three miles from the place at which the Agricultural Exhibitions shall be held, except at houses licensed according to law.

That as this is an Association of practical Farmers, disposed to acquire and communicate information derived from essays on the soil, it shall be the duty of one of the Assistant Secretaries, to record the substance of all verbal communications, which any of the members shall make, at the quarterly meetings.

That a committee be appointed to report upon Mr. Pope's Thrashing Machine, which has been this day exhibited. Whereupon Job Roberts, John Hare Powell, and Henry L. Waddell were appointed.

That the Directors be instructed to give notice, in such manner as they shall think fit, of the intention of this Society, to award premiums, at their Annual Meeting, for Neat Cattle, Sheep, Horses, Swine, Crops, Implements of Husbandry, and Household Manufactures—the value of the prizes, to be determined at the next Quarterly meeting. Accordingly, William Harris of Chester county, George Sheaff of Montgomery county, Henry L. Waddell of Bucks county, Aaron Clement of Philadelphia county, and Thomas Serrill of Delaware county, were constituted a Committee from the Board of Directors—Job Roberts, Manual Eyre, Samuel West, and Charles Downing were subsequently appointed to aid them.

The Committee appointed to examine Mr. Pope's Thrashing machine, reported—

"After having carefully examined the construction, and observed the performance of Mr. Pope's Hand Thrashing machine, we are disposed to think, that it is well adapted to the purposes of small farms; as it has in our presence, thrashed Wheat without difficulty, at the rate of sixty sheaves an hour."

JOB ROBERTS,
JOHN HARE POWELL,
HENRY L. WADDELL.

Mr. Joseph Kersey of Chester County, made a communication on an ingenious mode of making Thrashing flails—a communication on Shear accompanied by observations, on the expulsion of Rats.

Mr. Job Roberts of Montgomery county, communicated the result of his experience, corroborative of Mr. Kersey's remarks.

Mr. Powell of Philadelphia county, made the following communications on Mangel Wurtzel and Millet:—

I have certificates, accompanied by the oath of my farmer and his assistant, showing that 982½ bushels of Mangel Wurtzel were produced on 155¼ perches of land, which had not received more manure than is usually given to pot crops in this county. The soil had been very deeply ploughed, and stirred by Beaton's Scarifier, the manure was after ploughed nine inches under the surface, the Scarifier having been again applied, the roller and harrow were used to reduce the tilth. In April, the seeds were dibbled an inch deep—three inches apart, rows thirty inches asunder. Soon after the plants appeared, they were thinned, and left intervals of six inches—when their leaves became two inches long, they were cleaned with a four inch triangular hoe. The earth and weeds were thrown from them, by a very small one horse plough, leaving a space of four five inches unbroken next to them. The first row was returned by Davis' shovel plough; they were again hoed, and left a foot apart. In the first week of November, they were drawn closely cut beneath the crowns, measured, piled in a cellar in rows, as wood, and covered with sand. The expense of planting, tilling, and gathering the crop, was about equal to that of Indian corn.

My neat cattle prefer Mangel Wurtzel to roots which I have offered to them. I have found its effects, in producing large secretions of good milk, very great. I selected in November, two heifers of the same breed, and nearly of the same age, and in similar condition; they were tied in adjoining stalls, and

been fed regularly three times a day, by same man. One of them has had three of Mangel Wurtzel, and four quarts of meal daily; the other, four and a half of Mangel Wurtzel. The last, which has Mangel Wurtzel alone, is in the condition of good beef, the other is not more than what others call half fat.

I am aware that repeated experiments on various animals, must be made, to sanction any general conclusion, as to the comparative effects of different sorts of food. I mention the trial of the heifers, but as one of a series of attempts which I shall make, to determine, whether the great German Beet can be as effectively applied to the formation of fat, as to the production of milk, and the enlargement of size.

Thirty perches of this field produced more than nearly two acres which were differently managed at the same time. Much depends upon the kind of seed—upon the great thoroughness of ploughing, and fineness of the tilth—not less is dependant upon the quantity of manure. Among the various practices which we have been seduced, by the plausible theories of the advocates of British systems of husbandry, there is none which appears more absurd, than that which has led us to the use of the dibble, our crops on ridges. The English farmer wisely contends with the evils produced too much rain—the American husbandman would as anxiously guard against his most formidable enemy, drought. I am inclined to think that there is no crop, cultivated in this State, which ought not to be put upon a flat surface.

In citing the experiment upon feeding with Mangel Wurtzel, I have no intention to convey the idea so preposterous as some of the "Fanciers" have conceived, that Mangel Wurtzel, or any of the fashionable roots of the day, should interfere with the king of vegetables, Indian meal; or that where land is cheap, and labor is scarce, a farmer is "wise to amuse himself," and neglect his bullocks by plucking the luxuriant leaves of "the majestic Beta Altissima." I would merely recommend its cultivation, to a limited extent, on all farms. Its influence upon the health of cattle, milch cows, and more especially on calves, during their first winter, is very important. I have attended, with great accuracy, to the ills which are brought upon most young quadrupeds, when first weaned; and have invariably found them materially diminished by the use of succulent roots.

The application of Mangel Wurtzel as food for sheep, is not the least important of its uses. Every year usually at the season when grass cannot be supplied. The health of themselves, and the thrift of their lambs, essentially depend upon succulent food being had. I am inclined to think, that no small portion of the success which English breeders have met, is to be ascribed to the large stores of roots, which they always have at command. It cannot be denied that Indian meal will, of itself, in most cases, produce extraordinary fatness, as well as great size—but I have been led to believe, that seasons are early engendered by this species of feeding, which is always expensive, and too often eventually destroys the animal, which has been thus reared.

I was induced to cultivate this vegetable, by the success of Mr. Isaac C. Jones, who I may

venture to assert, after the most diligent inquiry, is the only person, by whom it had been grown in this state, except in small patches or gardens, until within two years.

I am, &c. yours,

JOHN HARE POWELL.

JONATHAN ROBERTS, Esq.

President of Penn. Agricultural Society.

I have made many experiments on various soils, and at different seasons, to ascertain the product, as well as the properties of Millet. Upon light land, in good condition, it succeeds best, it requires in all cases, fine tilth, and as much strength of soil as is necessary to produce heavy oats. I have not seen, either in Europe or America, any green crop, which so largely rewards accurate tillage and plentiful supplies of manure, as the species of millet usually grown in this and the adjacent counties. I have sown it from the first of May, to the 20th of June, and have invariably obtained more fodder than could have been had from any grass under similar circumstances. In the autumn, eighty bushels of caustic lime per acre, were strewed upon an old sward, which was immediately ploughed, closely harrowed, sown with rye, and rolled—the rye was depastured in the winter and succeeding spring—early in April the land was ploughed again; the lime and decomposed vegetable matter was thus returned to the surface—about three weeks after it was harrowed, to destroy weeds; early in May it was again harrowed for the same purpose—within a fortnight it was stirred with Beaton's Scarifier, to the depth of nine inches, harrowed, sown with Millet, and rolled. The crop was fairly estimated at three tons per acre. After the millet was cut, the field was stirred, and repeatedly harrowed, to destroy the after growth of noxious plants. I intend to again sow rye, not only to obtain pasturage, but to protect the soil from the exhalations of the sun. In the succeeding spring, a slight dressing of fresh manure was ploughed under; the scarifier, roller, and harrow were used at intervals as before. On the 5th of May, five bushels of millet seeds were sown on four acres—on the 5th of July the crop was hauled, and estimated at four tons per acre. I have obtained this season, forty tons from sixteen acres, of which four only had been manured, the remainder could not have borne a good wheat crop. One of the loads was weighed; an account of them was regularly kept; their size was made as nearly equal as possible. I have generally used a large quantity of seed, as not more than two-thirds of that which is usually sown, will vegetate. Whilst my oxen consumed millet in its green state, they performed their work with more spirit and vigor than they had done before, or have shewn since, except when fed with grain. My cattle, of all ages, prefer it to both red, and the best white clover, meadow or timothy hay.

I am not disposed to cultivate it as a farinaceous crop, since I have found great difficulty in protecting it from the ravages of immense flocks of birds, which it attracts, and in securing it sufficiently early to prevent a large part of the grain from being left on the ground. The seeds on the upper parts of the stalks, generally ripen, and fall, before those below have been filled. I therefore invariably cut it, when the upper parts of most of the heads contain

seeds, which are hard. All my observations have confirmed me in the belief, that in this stage it affords fodder, more nutritious, and more easily made, than any sort of hay. The expense of tilling the land, in the accurate manner which I have detailed, is not so great as at first view would appear. A yoke of good oxen can scarify three acres and an half, without difficulty, in one day. I would recommend millet, not merely for its value as a food, but for the means it affords of making clean the land, without summer fallows, or drill crops. The ingenious arguments which have been adduced to prove, that deep stirring between growing crops is advantageous to them and the soil, are founded upon English experience, properly directed by close attention to the effects of a moist climate. Some of our writers have profoundly asserted, that as "dew drops" are found on the under leaves of plants after deep stirring has been given in a time of great drought, the practice is sound. I should suggest, if I were allowed, that moisture had better be at such times, conveyed to the roots, than be exhaled by the sun, or placed on the leaves until his rays shall have exhausted it all. The valuable parts of most manures, readily assume the gaseous form—every deep stirring, to a certain extent, in hot weather, therefore, impoverishes the soil. Deep ploughing, at proper seasons, is, I conceive, the basis of all good farming; such crops as shall enable the husbandman to extirpate weeds, and obtain large supplies of fodder, without much exhaustion, should be the great objects for his aim. I would propose that a foul sward receive its proper quantity of quick lime, which should be spread, and ploughed under, in its caustic state, in the early part of September; that the field be harrowed sufficiently; sown with rye at the rate of two bushels per acre, as early as possible—that it be depastured late in the autumn, and early in the spring—that in May, it be again ploughed three inches deeper than before—that it be harrowed, and left until the small weeds begin to appear—early in June, Millet should be sown—in August, the crop can be removed after the labors of the general harvest. The field should be slightly stirred with the scarifier, occasionally harrowed, and left throughout September, for the destruction of weeds as before. In October it may be manured, and sown with wheat, or left for a crop of Indian Corn.

I am, &c. your's,

JOHN HARE POWELL.

JONATHAN ROBERTS, Esq.

President of Penn. Agricultural Society.

Dr. Taylor's easy method of ascertaining the qualities of Marle, Linc Stones, or Quick Lime, for the purposes of Agriculture.

This was a communication by Dr. Taylor, to the Manchester [Eng.] Agricultural Society; the general use of marle and lime, as manures, having prompted him to point out the importance of an easy and certain method of determining the qualities of different earths and stones, and ascertaining the quantity of calcareous earth in their composition; their value, in agriculture, commonly increasing in proportion to the greater quantity of it which they contain. The process recommended is thus described: The marle or stone being dried, and reduced to powder, put half an ounce of it into a half

pint glass, pouring in clear water till the glass is half full; then gradually add a small quantity of strong marine acid, commonly called spirit of salt, and stir the mixture well together. As soon as the effervescence thus excited subsides, add a little more marine acid; thus continuing the operation while any of the earthy matter appears to dissolve; and till the liquor, after being well stirred and allowed to stand for half an hour, appears sensibly acid to the taste. When the mixture has subsided, if the liquor above it be colorless, that marble or lime stone is the best which leaves the least in quantity of sediment or deposit at the bottom of the glass. This experiment is sufficient to determine which of the samples tried is most proper for the uses of agriculture; as pure calcareous earth or lime, which is the earth useful in agriculture, will be entirely dissolved, but clay or sand will not be sensibly acted on by the acid. Where great accuracy is required in determining the experiment, lay a soft spongy paper, of which the weight is exactly taken, in an earthen colander—for no metallic vessel, or implement for stirring, &c. must be used in any part of the process—and, pouring the saturated mixture of earth and acid on it, let all the liquor filter through; then pour a little clear water over the earthy matter remaining on the filter; and, when that water has also filtered through, dry the paper with the earthy matter on it which remains undissolved, when the deficiency found, on weighing them, from their original weight, will discover what portion of the marble or lime has been dissolved in the acid. What quantity of earthy matter has been dissolved, may be made evident to the sight, by gradually adding to the liquor which has been filtered through the paper, a clear solution of pearl ashes, or ashes of burnt wood; this will occasion a precipitation of the contained lime or calcareous earth to the bottom of the vessel, which precipitate must be dried and weighed.

THE FARMER.

BOSTON:—SATURDAY, MARCH 29, 1823.

The Farmer's and Gardener's Remembrancer.

MARCH AND APRIL.

SOWING GRASS LAND.—Those cultivators who propose to lay down land to grass, and have not sowed their grass seed with their winter grain should sow it about this time. Some say that grass seed cannot be sowed too early in the spring, and others advise to wait till the ground becomes a little warmed and dried by the sun. Should you think it advisable to spring-harrow your winter grain, which is a practice highly recommended by British and American agriculturists, you can at the same time, harrow in your grass seed. If not, sow it without harrowing in damp calm weather.

ACCIDENTAL MANURE.—As soon as the ground is bare of snow in the spring, turn out with your boys, and parade over your pasture land, (and your mowing lots if you ever permit cattle to feed on them, which by the bye is not a good practice) and with bats or long handled mallets beat and spread about the droppings of your cattle.

TOP DRESSINGS.—If you neglected to manure your mowing land with top-dressings last fall, it may be done in the spring; though it is generally held that manure is applied to grass land

to the best advantage in autumn.* Dr. Deane observed, "If the application of top dressings to mowing ground were generally practiced, and repeated as it ought to be, instead of the general, or rather universal neglect of it, it would put a new face upon things. A vast plenty of hay, double crops, two cuttings in a year, and much increase of wealth to farmers in general would be the happy consequences."† Sir John Sinclair recommends top dressing a growing crop, when it is suspected that the land is not rich enough to bring a full crop to perfection, and directs that this should be done as early in the spring as the land becomes sufficiently dry to bear the treading of a horse without poaching; and after the manure has been applied, the land should generally be harrowed or rolled. Soot, ashes, and other light manures are thus most advantageously disposed of.‡

A few bushels of lime, thoroughly pulverized and air slacked, are recommended as top dressings for winter grain. Ashes too, either leached or dry, make a good top dressing for grass or grain, as well as for Indian corn. Dry unleached ashes are best, but leached ashes are valuable, particularly soapers' waste, which has lime mixed with it.

SPRING PLOUGHING.—A prudent farmer will manage his affairs in such a way as to have as little ploughing to perform in the spring as possible. In general way it is thought that all the land which it is intended to sow with any kind of grain, in the spring, or to plant with potatoes, or Indian corn, &c. should, by all means, be ploughed the autumn preceding. You thus take advantage of the beneficial operation of frosts in the winter, which pulverize the soil to better effect than any mechanical means. And, often, when ploughing is well done in autumn, it will not be necessary to renew it in the spring. We have seen very fine crops of Indian corn, raised on land which had been strongly swarded with grass, and had received but one ploughing, which was given some time in the summer or fall preceding the season in which the crop was planted. But it is necessary in such case that the ploughing be deep, and the furrow completely turned, so that every particle of the grass may be buried. In great Britain, where labor is comparatively much cheaper than in the United States, spring-ploughing is often dispensed with. A very eminent agriculturist observed that "the preferable method of sowing oats, and especially in a clay soil, is to turn the field over, after harvest, and to lay it open to the influences of frost and air; which lessen the tenacity of the clay and reduce it to a fine mould. The surface soil by this means, is finely mellowed for the reception of the seed; which it would be a pity to bury by a second ploughing, before sowing. We are taught by experience, that this soil, ploughed before winter, is sooner dry, than when the ploughing is delayed till spring; and as early sowing is a great advantage, any objection on account of the superficial crusting is easily removed by a strong harrow, which would produce abundance of mould for covering the seed."§ Sir John Sinclair, likewise, says that "ploughing lands in spring, when sufficiently clear, and prepared be-

fore winter, is an unnecessary increase of labor. He allows, however, that cases may occur, which spring ploughing may be advisable, oats, barley, &c. in order to subdue weeds. Likewise, on hard, stony soils, or where ploughing has been imperfectly executed, spring ploughing becomes requisite. But whether the land is ploughed in the spring or not, ploughing in autumn has many advantages, among which that of exposing worms and other insects, which infest the soil, to the intense frosts of winter, not the least.

WORKING OXEN.—It has been asserted that working oxen perform their spring work better for being fed two or three times a day with a few ears of Indian corn. This kind of food is, however, thought by others, to possess a heating quality and they therefore prefer raw potatoes, which, they say, operate both as food and physic, and cool and strengthen the animal.

PASTURE FOR SWINE.—A lot well seeded down to clover has been recommended by good farmers as highly useful for pasturing swine. The quantity of land should be so proportioned to the number of swine that they may keep the grass from going to seed. This will prevent waste, and the shorter the grass is the sweeter it will be, and the more agreeable to the palate of this kind of epicures. It was the opinion of Dr. Deane, that one acre of rich land in clover would support twenty or more swine, large or small, through the summer, and bring them well forward in their growth. The hogs should be well ringed, or, it is said by an English writer that shaving off the gristle of young pigs with a sharp knife, will answer the purpose of preventing them from rooting, and be better for the animals than ringing. Arthur Young, a famous English writer on Agriculture, pastured six four swine, of various sizes, on two acres of ground. The pig-pasture should have a good supply of water. A few sweet apple trees growing in the pasture, will furnish a kind of food, which will assist to increase the growth and will in part fatten the swine. Hogs, however, should not be turned into their pasture till about the first of May; but those who have not a clover pasture for their use may set about preparing one as soon as they please.

PRUNING FRUIT TREES.—Many farmers have been in the habit of pruning their fruit trees in February and March, but this is wrong. "In March the sap is retained in the roots, and the bark adheres closely to the wood; consequently, the wounds occasioned by the amputation of branches being exposed to the cold, penetrating winds and frosts, before the circulation of the sap, become dry, rotten and cankered, an often crack open near to the main trunk. In old orchards, particularly, if limbs of any considerable size are lopped off, several inches from the trunk, before the sap is in active motion, the fresh bark round the wood becomes dry; large cavities are formed, which rapidly extend towards the trunk and heart, and the tree is soon deprived of its health and vigor. In our New England climate, we have the clearest indications that the sap commences its circulation about the 10th of April. From this period to about the last of May, whether the buds are just opening or the blossoms fully expanded, the pruning should be accomplished."† The

* See Messrs. Wells & Lilly's edition of Deane's Geographical Dictionary, p. 458.

† Code of Agriculture.

‡ Kaimes' Gentleman Farmer.

† Ibid.

* Code of Agriculture.

† Thacher's American Orchardist, p. 64.

Mr. Pickering, likewise says that his practice has been to prune in the spring, beginning when the buds have scarcely begun to swell, and ending before the expansion of the leaves. Mr. Forsyth, likewise, in his Treatise on Fruit Trees (p. 18, Cobbett's Edition) says, "I have a great dislike to autumnal pruning, and in the spring, when the sap is beginning to flow, the knife, the lips will quickly grow."—The writer whose essay on the subject of apiculture, is published in the *Massachusetts Agricultural Repository*, p. 121 to 127, in stating errors in the mode of managing orchards, says that beginning to prune in March, when there is still much wet and frosty weather, and no activity in the sap of the tree, is injurious. These authorities are proper to show what should not be done, till the subject is further advanced; and to evince that the application of labor is oftentimes more detrimental to a farmer, than sheer idleness.

PEAS.—As soon as possible prepare an acre of ground for the reception of peas. Cobbett gives the following directions for sowing peas. "I ploughed the ground into four foot ridges, the tops of which (for the dwarf sorts) I raised four feet apart. I then put a good parcel of dung into the furrows; and ploughed the earth back upon the dung. I then levelled the top of the ridge a little, and drew two drills upon it at six inches distant from each other. In these I sowed the peas. When the peas were about three inches high, I hoed the ground deep and well between the rows and on the outside of them. I then ploughed the ground from them and to them again, in the same way as in the case of Swedish Turnips. In a week or two afterwards they had begun to ploughing; and soon after they fell and lay down the sides of the ridges. When not yet sown, and sown upon level ground, peas fall irregularly, and in case of much wet, the pods rot; but from the ridges they fall evenly, and the wet does not lodge about them. You walk up the furrows to gather the peas, and nothing can be more beautiful or convenient. The culture in the garden is the same, except that the work which is done with the plough, in the field, must in the garden be done with the spade."—*American Gardener*, Par. 241. Mr. McMahon directs, "in order to give the first early crops a greater advantage, prepare a south border of dry light soil for their reception, and raise the earth on sloping ridges, about a foot broad at the top, and nine inches high, and at the distance of three feet from each other; ranging the border on a south west direction, from the north to the south; then on the easterly sides of the ridges about half their height, sow your first peas, pretty thick, covering them about an inch and an half, or if the land be very light and sandy, two inches, or if of a stiff nature, three inches in depth. In this situation, they will have all the advantage of the morning and evening sun, lie dry, and will consequently be in vegetation much more rapidly than in the ordinary way."—*American Gardener*, Calendar.

Mr. Deane observed that for field peas, land newly ploughed out of sward is generally the best; and land which is high and dry has not been too much dunged. The

sorts, which grow large, should have a weaker soil; in a stronger soil the smaller sorts answer. Our farmers do not commonly allow a sufficient quantity of seed for peas in broad cast sowing. When sowed thin they lie upon the ground, but if sowed thick they hold each other up. Mr. Deane recommended three bushels to an acre. In sowing peas in rows which grow six or seven feet high, to have the rows 12 or 14 feet apart, with rows of carrots or onions, &c. between them is thought a good practice.

WAR DECLARED!—The Brig Parthian, Capt. Nye, has arrived at New Bedford, in 35 days from Lisbon. Capt. Nye reports, that the day before he sailed, Mr. Hutchinson, our Consul there, informed him, that accounts had been received of WAR'S BEING DECLARED BETWEEN FRANCE AND SPAIN.

AGRICULTURAL SOCIETY IN VIRGINIA.

A meeting of "The Agricultural Society of the Valley," was held at Winchester, (Va.) on the 1st inst. and after a very able address from the President, and some other proceedings of local interest, Mr. William M. Barton presented to the Society some Flax, cleaned by a new invented machine, accompanied by a letter from Gen. Samuel Swartout, of New York, in which he describes the facility with which one man can clean flax, amounting to 100 lbs. cleaned for the hackle in one day—the price to be \$100. The machine, owing to some disappointment, was not exhibited. The same gentleman presented some rape or cole seed, a present from the Hon. De Witt Clinton, of New York, which was assigned to Edward McGuire, Esq. Treasurer, for distribution among the most careful farmers. "This plant has long been celebrated in Ireland and England, for its great utility in feeding sheep, as being remarkably hardy and capable of sustaining the most severe winter without injury. It is a species of cabbage, and is also celebrated for the oil it produces, which answers for burning in lamps. The cake also is valuable for feeding cattle, and serves as a manure." A letter was presented to the Society by Mr. Wm. M. Barton, from Judge Buel, of Albany, N. Y. giving an account of his mode of cultivating the Ruta Baga, or Swedish turnip, upon a clover lay previously mowed, in which he was very successful, the acre having produced 500 bushels.

The following gentlemen were chosen honorary members of this Society:—Hon. De Witt Clinton and Jesse Buel, Esq. of the State of New York; Hon. Josiah Quincy, Thomas L. Winthrop, Esq. S. W. Pomeroy, Esq. and Dr. Dexter, of or near Boston.

Exhibition of Horses.—We learn from the last N. Hampton Gazette, that "the Executive Committee of the Hampshire, Franklin and Hampden Agricultural Society, propose to their fellow citizens of the three counties, to have an exhibition of Horses, in the village of Springfield, in the county of Hampden, on Wednesday, the 21st day of May next." They likewise offer premiums to the amount, in all of \$131, for the best stud horse, breeding mare, gelding horses, &c. &c.

Safford's Straw Cutter.—We have seen a Machine in operation for cutting straw, &c. invented by Mr. Noah Safford, of Springfield, Vermont, which we believe to combine more advantages than any other ever put in use, taking into consideration its cheapness, simplicity, &c. We are well assured that it will cut, with the moderate labor of one man, a bushel of straw in a minute, or sixty bushels in an hour. The notice of the improvement which is given in Mr. S.'s advertisement, together with the testimonial in its favor, bearing the signatures of persons who are good judges of the merits of machinery of this sort, supersede the necessity of any further remarks from us.

We are compelled, for want of room, to omit several articles intended for this day's paper; and among others an advertisement for Mr. Osborn's Poems, which shall appear in our next.

DIED.—In Washington, on the 17th inst. the Hon. BROCKHOUST LIVINGSTON, one of the Judges of the Supreme Court of the United States, aged 65.

NEW GARDEN SEEDS.

FOR sale, by GEO. MURDOCK, No. 14, Market Square, a great variety of English and American GARDEN SEEDS, of the last year's growth; consisting of early Frame, Hot-pur and Charlton Pease; early and late Cabbage; early and late Cauliflower; Sweet Marjoram, Thyme, &c. with every other Seed suitable for a Kitchen Garden. Also, 40 lbs. Mangel Wurtzel or Scurcity—100 lbs. Ruta Baga or Swedish Turnip—a quantity of Armack or Carrot. March 22.—6w

SAFFORD'S STRAW CUTTER.

THE utility of cutting Hay, Straw, and other substances for feeding cattle, is now so universally acknowledged that any remarks on the subject must be deemed superfluous. The following Certificate will therefore be conclusive of the merits of the above mentioned Machine.

Boston, March 22, 1823.

We, the subscribers, have in operation a Straw Cutting Machine invented and exhibited in this city by Noah Safford, and we do not hesitate to say that in our opinion it exceeds any other we have ever seen, for cheapness, simplicity, despatch and durability.

STEPHEN HARTWELL, SPURN & HOLMES,
HEZEKIAH EARL, ANDREW SLATER.

The above mentioned Machines may be had of J. R. NEWELL, at the Agricultural Establishment, No. 20, Merchant's Row, Boston. Price \$15.

PRICES OF COUNTRY PRODUCE, &c.

[Revised and corrected every Friday.]

		FROM	TO
		D. C.	D. C.
ASHES, pot, 1st qual.	ton.	147 00	150 00
pearl do.		155 00	157 50
BEANS, white.	bush	1 00	1 10
BEEF, mess, 200 cwt.	bbl.	9 50	10 00
" No. 1.		8 50	9 00
" No. 2.		6 50	7 00
BUTTER, inspect. 1st qual.	lb.	14	15
" 2d qual.		12	13
small kegs, family,		15	16
CHEESE, new milk		7	9
FLAX		8	9
FLAX SEED	bush	8	9
FLOUR, Baltimore, superfine,	bbl.	7 50	7 62
Genesee		7 50	7 75
Rye, best		4 50	5 00
GRAIN, Rye	bush	80	83
Corn		65	70
Barley		63	65
Oats		43	46
HOGS' LARD, 1st sort	lb.	9	
HOPS, No. 1.		10	12
LIME	cask	1 25	1 50
OIL, Linseed, American	gal.	65	70
PLASTER PARIS	ton.	3 00	3 25
PORK, Navy Mess	bbl.	12 00	12 50
Bone Middlings		14 00	14 50
Cargo, No. 1.		12 00	12 50
Cargo, No. 2.		11 00	11 50
SEEDS, Herd's Grass	bush	2 25	2 50
Clover	lb.	8	9
WOOL, Merino, full blood, washed		55	65
do. do. unwashed		45	47
do. 3-4 washed		45	47
do. 1-2 do.		40	45
Native do.		35	40
Pulled, Lamb's, 1st sort		55	60
do. Spinning, 1st sort		47	50

PROVISION MARKET.

BEEF, best pieces	lb.	8	10
PORK, fresh		6	8
VEAL		6	9
MUTTON		5	7
POULTRY		7	12
BUTTER, keg & tub		15	16
lump, best		16	18
EGGS	doz.	14	16
MEAL, Rye	bush	85	90
Indian		80	85
POTATOES		37	
CIDER, liquor	bbl.	1 50	
HAY, best	ton.	20 00	24 00

THE FARMER.—BY T. G. FESSENDEN.

Let monied blockhead's roll in wealth,
Let proud fools strut in state,
My hands, my homestead and my health
Place me above the great.

I never fawn, nor sib, nor feign,
To please old Mammon's fry;
But independence still maintain
On all beneath the sky.

Thus Cincinnatus, at his plough,
With more true glory shone,
Than Cæsar with his laurel'd brow,
His palace and his throne.

Tumult, perplexity and care
Are bold ambition's lot;
But those intruders never dare
Disturb my peaceful cot.

Blest with bare competence, I find
What monarch's never can,
Health, and tranquillity of mind,
Heaven's choicest gifts to man.

The toil with which I till the ground
For exercise is meet—
Is mere amusement, which is crown'd
With slumber sound and sweet.

But those who toil in pleasure's rounds,
Sweet slumber soon destroy;
Soon find, on dissipation's grounds,
A grave for every joy.

ON THE VOWELS.

We are little airy creatures,
All of different voice and features;
One of us in glass is set,
One of us you'll find in jet,
One you may perceive in tin,
And the fourth a box within;
If the fifth you should pursue
It can never fly from you;
The sixth you always may espy
Lurking in a lover's eye.

Lord Mansfield was not a dandy.—One day when Lord Mansfield was sitting for his picture, Sir Joshua Reynolds, who painted the portrait, asked him if he thought it a likeness? His Lordship replied, that it was not in his power to judge of its degree of resemblance, as he had not seen his own face in a looking glass during the last thirty years of his life; for his servant always dressed him, and put on his wig, which therefore rendered it unnecessary for him to look at himself in a mirror.

Judge Brackenridge, in reprimanding a criminal, amongst other *hard names*, called him a scoundrel. The prisoner replied—"Sir, I am not so great a scoundrel as your honor takes me to be." "Put your words closer together," said the Judge.

An auctioneer at a late sale of antiquities, put up a helmet, with the following candid observation: "This, ladies and gentlemen, is a helmet of Romulus, the Roman Founder; but whether he was a brass or iron founder I cannot tell."

Authors are like asparagus; there is nothing good about them but the head.

April is much like a pretty woman, being full of sweets, and having both tears and smiles at command.

From the West Chester Republican.

WEEVILS.—Remarks on their habits, and means of destroying them.

As much injury is done in barns to the different kinds of grain, by these insects, I wish the society to devote some attention to the most efficacious method of destroying them, or preventing their ravages. I have endeavored, for several years, to become acquainted with their habits, and am willing to state the result of my conclusions, hoping it may occasion, from some abler pen, more important information. I believe they continue residents for life, of the buildings in which chance may place them, and that they do not migrate from one barn to another, unless carried thither. That during the winter they lie in a dormant state near the ground. I have found numbers of them at that season on the lower sides of boards which were lying under the mangers in stables. Instinct, no doubt, teaches them at the commencement of cold weather, to seek a retreat where they may lie secure, and where they will be somewhat sheltered from intense cold. Had they remained in the mow, on threshing the grain, they being in a dormant state, would probably be destroyed. About the middle of the 5th month, May, they begin to travel, crawling up the walls, and in every direction in search of food. If any grain be in the barn, they find it; and I have seen as many as eight or ten on one grain of Indian corn, the eye of which they at first consume. When wheat, rye, or barley, is brought into the barn, they penetrate the mow, and I apprehend, deposit their eggs in the grain, which serves for food for the young insects, till they arrive at nearly the size of the parents; probably the sweating and the warmth of the mow, much assist in the depositing of the egg, and in bringing the insect to perfection.

As a proof that the egg is deposited in the grain, it will be found, that if wheat be threshed some short time after harvest, in barns where weevils abound, when it will be very little eaten by them, and put into bags, and perhaps few of the insects then to be seen, that in a few weeks it will be very much eaten, and numbers of weevils in the bags. Having thus briefly stated my opinion of their habits, I will suggest a few propositions for destroying them. The most efficacious mode, I apprehend, would be to stack the grain out for one or two years, and keep all kinds of it from lying in the barn, during the summer season; by this means they would be deprived of food and of a suitable place to deposit their young.

Many of them may be destroyed by having no grain in the barn from the time they leave their winter retreat, till harvest; except about a double handful of Indian corn in a place, and in several different places. Numbers of them will go to these heaps for food, then about once in two days riddle them in some clean place with a wheat riddle, the insects will fall through, which may be gathered up and thrown into the fire. Another method is to leave a little straw in the stables at this season, and before harvest gather it all up carefully, and draw it out into a field, many weevils will thus be taken out and perish. It is said, though I have never experienced it, that they have a great antipathy to hemp, that a few layers of it, spread among the grain, at the time of putting it in the barn, will

prevent their ravages. No doubt, members of the society, and others are possessed of facts on this subject which would be highly interesting to those who are troubled with these insects about their barns. It is hoped they will be induced, through the medium of the society, otherwise, to make them public, as it may be the means of saving many bushels of grain annually for the benefit of the community.

ISAAC SHARPLES

From the Connecticut Courant.

CANADA THISTLE.

A few days since I called on a member of Litchfield County Agricultural Society, who showed me a piece of ground from which had easily and effectually eradicated the *Canada Thistle*. As this subject is becoming very interesting to this portion of the country, I true account of the process by which this object effected will not be unacceptable to your cultural readers.

The secret consists in cutting off the near the ground at the *change of the moon*, the *new moon*, as near the change as possible *June or July*. This, my informant says, generally destroy all the plants the first year should any shoots sprout the next year, let same course be pursued, and in two or years there will not a root remain.

This process of course is better adapted cases where the evil has but just commenced. This is the third year from the commencement of the operation on the small piece I was shown from two to four rods square; and at a time not a Canada Thistle is to be found! although three years since they constituted principal growth. That the circumstances attending this case were correctly detailed confirmed to me by a neighbor of my informant, who was present, and who had witnessed the whole process. He informed me that he derived his information from a farmer in Litchfield county, by whom, and in whose vicinity this course has been extensively pursued with uniform success. The discovery was made, as I am informed, through the channel, by an observing farmer in Troy, Some years since, being much infested with these troublesome weeds, he cut down a quantity of them in the vicinity of his house, was surprised to find the next year that he had thus served did not shoot up. Upon recurring to dates, he found they had been cut exactly at the change of the moon. This induced a second experiment which produced the same result; but subsequent and more extensive experiments determined the best time for cutting these noxious weeds to be as I have before stated.

A FARM

TERMS OF THE FARMER.

Published every Saturday, at THREE Dollars per annum, payable at the end of the year—but who pay within *sixty days* from the time of subscription will be entitled to a deduction of FIFTY CENTS.

No paper will be discontinued (unless at discretion of the Publisher) until arrearages are paid.

Agents who procure seven subscribers, and come responsible for the payment, will be entitled to a copy gratis, and in the same proportion for a larger number.

Complete files from the commencement of the paper in August can be furnished.

NEW ENGLAND FARMER.

PUBLISHED BY THOMAS W. SHEPARD ROGERS' BUILDINGS, CONGRESS STREET, (FOURTH DOOR FROM STATE STREET.)

VOL. I.

BOSTON, SATURDAY, APRIL 5, 1823.

No. 36.

ON SAVING AND MAKING THE MOST OF MANURE.

BY THE EDITOR.

(Continued from p. 215.)

We have already been somewhat copious in our observations relative to collecting and applying *liquid manure*.* But this is a *fruitful* topic; and, as manure is the *farmer's indispensable*, it is therefore an *important* topic. We are aware that we can write nothing upon the subject which will prove quite so amusing to what is denominated the *genteeler* part of our population as the "Pioneers," or "Peverill of the Peak." Still, we are inclined to think, with a leave of novel-readers, dandies, victims of sensibility, ladies' gentlemen, gentlemen's ladies, and the rest of "nature's porcelain," that our remarks on Manure may prove quite as *useful* to a farmer and his family, as the most fascinating productions of the "GREAT UNKNOWN," or those of his American compeer. But, lest our opinion, as respects the paramount claims of the matter under consideration to our reader's respectful attention, should be thought not exactly orthodox, we will condescend to fortify ourselves with a little "chopped logic," so called by masters of rhetoric. "All flesh is grass;" but grass will not grow to advantage without *manure*—therefore *all flesh* (including ladies and gentlemen) has a direct interest in saving and making the most of this last mentioned article.

The same or similar receptacles to those made use of for containing the stale of cattle, the draining of dunghills, &c. may likewise serve as repositories for soap suds, dish water, and those more offensive substances, which will sometimes make their way into the best of families. It will not be very expensive, compared with the importance of the object, to conduct every thing of this nature, by suitable pipes, or covered drains, to a dung pit, or other proper reservoir, where they may be either incorporated with earth and form a valuable compost, or, perhaps, after being diluted with water, applied to plants in the garden, or to crops near the homestead. No head of a family, who has any regard to health as well as cleanliness and economy, will suffer any noxious or putrid substances to contaminate the air about his dwelling. He will reflect that such nuisances not only trespass on the senses of sight and smell, but assail the constitution; and though they may not immediately convert his house into a hospital, they add the air with the seeds of debility, and generate slow, nervous and typhus fevers. Indeed they are hardly exceeded by morning drafts in causing that languor which makes life a burthen,

"A long disease which death alone can cure."

Yet the house-yards as well as the barn-yards and other premises of some farmers may be polluted at a very unreasonable distance. Instead of pure country air, they are surrounded with poisonous exhalations, and their habitations are fit for the residence of no animals but such as Shakspeare mentions, which "live on the vapors of a dunghill." This is the more worthy of censure because it may be easily pre-

vented. A proper quantity of fresh earth, mixed with or thrown over any putrescent, mouldy, or fermenting substances, absorbs every thing offensive or injurious, and changes the causes of pestilence into the sources of fertility. Among other things, night soil or privy manure, should, at least in warm weather, two or three times a week, (or better every day) be covered or incorporated with several times its bulk of fresh loam; and if a little lime is mixed with the other ingredients, the compound will retain no bad odour.*

Some people will doubtless tell us that our directions are well enough in theory, and will do for "Gentleman Farmers," but would cost too much for common farmers to put in practice. Health, however, can hardly be purchased too dearly. "Skin for skin, yea, all that a man hath will he give for his life;" and life without health is scarcely a blessing. Pure air is as necessary for health as pure water, or wholesome food. Besides, the expense of the necessary implements, pipes, reservoirs, &c. in the first instance, cannot be great, and after those are made, a habit of cleanliness, and attention to what may be deemed small, but are really important matters is almost all that is required. There is nothing so expensive as negligence; carelessness is very costly, and he who will not or cannot afford the money or labor necessary for the proper pursuit of his vocation, will find parsimony to be the highway to poverty; and that "there is nothing like poverty for keeping a man poor."

With regard to the exact manner in which the pipes and reservoirs of liquid manure should be constructed we shall add but little to what has been already observed, but leave the reader, who may have a use for such conveniences to the exercise of his own ingenuity. Those who have cellars under their barns, or can conveniently form such cellars, will perhaps do well to make them the receptacles of all the liquid as well as solid matter, which is valuable for manure. Those who have not, or cannot afford, or do not wish for such cellars, may, perhaps, derive useful hints from the following passages, extracted from the writings of an able author, whom we have frequently had occasion to quote.

"It would be injudicious to recommend here

* "Night soil, it is well known, is a very powerful manure, and very liable to decomposition. From the analysis of Berzelius, it appears that a part of it is always soluble in water; and in whatever state it is used, whether recent or fermented, it supplies abundance of food to plants. The disagreeable smell of night soil may be destroyed by mixing it with quick lime; and if exposed to the atmosphere in thin layers strewed over with quick lime, in fine weather it speedily dries, is easily pulverized, and in this state may be used in the same manner as rape cake, and delivered into the furrow with the seed.

"The Chinese, who have more practical knowledge of the use and application of manures than any other people existing, mix their night soil with one third of its weight of a fat marle, make it into cakes, and dry it by exposure to the sun. These cakes, we are informed by the French missionaries, have no disagreeable smell, and form a common article of commerce of the empire."—*Agricultural Chemistry*.

[in Nova Scotia] the identical plan of construction for a dunghill, which is prevalent in England; yet at the same time, a brief description of this necessary part of farm-building as conducted at home, would not be altogether useless. The general principles are the same in all places, and in all countries; although the manner of applying them may be different and accommodated to circumstances. The out-houses or offices, attached to every farm of any extent, are generally arranged in a square form, leaving an area in the centre, which is surrounded on all sides by a foot pavement. Here a pit is opened, varying from two to three feet in depth, and proportioned to the size of the area; paved either at bottom with flag stones, or coated with clay—the cow house, the pig-stye, the feeding stall, the stable are all so contrived, that the urine and vegetable juices, in the separate subdivisions flow inward, and empty themselves into this excavation. It is the common receptacle of all the dung made by the cattle, of the refuse of the kitchen, of the sweepings of the barn-floor, and in short, of all the waste of the farm.

"First of all, a coating of common mould, by most of the enlightened and scientific agriculturists, is spread all along the pavement of this pit, from 9 to 15 inches deep, according to the convenience or fancy of the operator. On this the manure is laid, as it is brought by a wheelbarrow out of the different offices and stalls. When fermentation becomes violent, and this is indicated by the heat and strength of the vapor, the cleaning of ditches and roads, or, in want of these, common earth are carted, often from a considerable distance, and regularly spread over the dunghill. The gases are thus absorbed and prevented from escaping; and recourse is had to this remedy, whenever the rapidity of the putrefactive process points out its necessity. According to this plan, there is no waste nor carelessness in the management of the manure. The mould at bottom imbibes greedily the saturated liquor which sinks downward; and that, which is intermingled with the whole mass fixes and retains the gases—so often described as the elementary principles of the decomposing matter. From experience it is discovered that the earthly materials which are thus added to the animal and vegetable substances, are impregnated with as nutritive virtues as the dung itself; and that they increase the bulk and value of the manure by their whole amount."

The same author also gives the following directions for the same purpose, which, though mostly coinciding with the foregoing, are, in some particulars, more definite.

"With respect to the formation of a dung pit, I would recommend that a place be chosen near the barn, which should be dug about three feet deep, and of a size proportionate to the stock of cattle usually kept by the farmer. It is not necessary that it should be built round with a wall, or have a perpendicular descent, as it may slope gently inwards, and deepen gradually towards the centre. After it is thus

* Letters of Agricola, p. 204, 205.

hollowed out, the texture of the bottom should be examined, and if found firm, impervious, and capable of containing the juices, no further trouble is requisite, and the work is complete: but, if open and porous, it should be coated with clay, and lined with large and coarse flags [paving stones.] Into this pit, earth from some neighboring field should be first brought, and strewn over the bottom and sloping sides, to the thickness of from 9 to 12 inches. Thus a safe depository will be prepared, for the cleanings of the barn, for the waste straw and weeds, for the sweepings of the kitchen, for the stems of peas, beans, cabbages, potatoes, and in short all vegetable matter of woody fibre, as well as for the dung of the feeding cattle, after a complete layer of putrescible matter has been spread all over, and when the symptoms of an active fermentation have become visible, the earth, which was thrown out of the excavation, may be slowly returned, and scattered on the surface of the heap, to catch the exhalations which are ascending. Hither, too, the urine should either be conducted by a drain, or carried by buckets; for it is an unpardonable waste to lose the benefit of this rich and invigorating manure. The earth, which lies at the bottom will greedily drink up the urine and the vegetable juices, and thus gain a large accession of nutriment and value. So soon as the pit is filled up in the manner herein described, it should be emptied of all its contents; and these should be carted to the field where they are meant to be afterwards applied, and there laid down in some convenient corner, to be mixed up and sorted into a profitable compost. The pit—adjoining the barn—may be again lined with mould, and the former operations repeated in procuring and augmenting its contents.

“During summer, this pit should be emptied twice or thrice according to circumstances; and its fermentable and earthy materials transported to the ground which they are destined to fertilize, and there subjected to a new process. Towards the fall, which by its length and mildness makes amends for the advantages of more favored regions, all those compost heaps, as well as the dung about the barn yard, should be spread on the land, which is meant to be immediately ploughed. In the mean time an additional stratum of mould should be distributed along the bottom and side of the pit before the approach of winter, and during that rigid season, the dung may be accumulated without any extraordinary care, as the intensity of the cold is unfavorable to putrefaction, and little loss will be sustained from the dissipation of the gaseous matter. Such farmers as may choose to take the trouble, and have suitable convenience of covered sheds, may pile up before hand a quantity of dry earth, which may be scattered over the dunghill in the depth of winter, on such places as indicate strong fermentation.”*

The dung-pit (or stercorary as the learned call it) will prove of the least use in those seasons of the year, when the stock is kept mostly in pastures, or the weather is such that the manure is constantly frozen. But greater or less accessions may be made to such pits or reservoirs at all seasons of the year. In summer, if the stock is neither yarded nor stabled, the kitchen, the sty, &c. will add something to the

dung-pit, and those who have their manure pits in cellars under their baros, (which is undoubtedly the best practice) may keep their manure manufactory in successful operation in almost any extremity of cold to which our climate is subjected. Wherever the manure pit is situated, it ought to be covered from the sun and rain; and its contents ought not to be suffered long to undergo the putrefactive process without earth, peat, or some suitable substance to absorb its gaseous products. The farmer may vary his plans for saving and making the most of every substance which is suitable for, or can be converted into manure, as his judgment may direct; but he should recollect that whenever he manages in such a manner as to “*manure the atmosphere*,” instead of his land or his plants, he over steps or falls short of the line of his duty, and hardly deserves his honorable office of an independent cultivator of the soil.

(TO BE CONTINUED.)

To stop the Rapidity of Flames when the Female Dress happens accidentally to take Fire.

If a woollen cloth was constantly kept in nurseries and sitting-rooms, especially when there are fires, laid loose upon the table, or other piece of furniture, this being always at hand, might be easily resorted to in case of accident, and being wrapt tight round the flames, or strongly pressed against them, would, by excluding the air, in many instances, soon extinguish the fire. A green baize cloth being very pliable, and likewise a neat cover to furniture, is recommended for this purpose; and if such were known in the family by the name of the *Stifling Cloth*, it probably would as readily be used when there was occasion for it, as fire engines and buckets are now. Where the convenience of baize cloth cannot be easily procured, as in cottages, &c. a cloth cloak, riding-coat, or blanket, will answer much the same purpose. A man's coat will always be useful; and the first man that arrives ought to apply it.

To stop Cracks in Glass Vessels.

The cracks of glass vessels may be mended, by daubing them with a suitable piece of linen over with white of egg, strewing both over with finely powdered quicklime, and instantly applying the linen closely and evenly.

Cement for preserving Wood and Brick.

This composition is formed of the following materials, viz. mineral or coal tar, pulverized coal, (charcoal is esteemed the best) and fine well slacked lime; the coal and lime to be well mixed together, proportioned at about four-fifths coal and one fifth lime: the tar to be heated, and while hot thickened with the mixture of coal and lime, until it becomes so hard that it may be easily spread upon the surface of a board, and not run when hot. Turpentine or pitch will answer nearly as well as tar, and plaister of Paris will answer instead of lime; to be used in the same manner, and in about the same proportions. The cement must be applied warm, and is found to be used easiest with a trowel.

Cement for Wood or Paper.

Dissolve some isinglass in a small quantity of gin or proof spirit, by a very gentle heat; and preserve it in a bottle for use.

FOR THE NEW ENGLAND FARMER.

MR. EDITOR—Having seen nothing in your valuable paper respecting making manure from swine, I have been induced to send you for publication, my method of making hog manure; it is generally termed, together with a brief sketch of its qualities and effects.

I generally keep and fatten four hogs each year. I keep them in two separate apartments because I think they do much better when kept in two pens, than when kept all together. I have a tight, warm house for them to lie in, and a yard fifteen feet square, into which I frequently throw loam, and swamp mud. I keep them well supplied with straw in their house, but do not suffer it to remain therein more than a week, when I remove all from the house in the yard, and supply them with fresh straw. In the spring and summer I frequently collect large quantities of weeds, and put into the yard some of which they devour, the remainder trodden under foot, which, together with the loam and straw, is frequently and thoroughly worked over by them. In this way I make from twenty to thirty loads of manure in a year, which answers a more valuable purpose than any other kind of manure I make use of. Manure of this kind, seems to be of a moist, nutritious nature, and always has a good effect, especially when used on dry, sandy or gravelly land. Corn or any other kind of vegetable manured therewith, will endure the drought much better than when manured with other kinds of manure. I think the most valuable use to which it can be applied, is to manure corn in the hill. It answers well for potatoes and most other kinds of vegetables.

A. FARWELL.

Worcester, March 28, 1823.

Report of the Committee of the Essex Agricultural Society, on the Management of Farms—from a pamphlet published by said Society in October last.

The Committee appointed by the Trustees of the Essex Agricultural Society, to examine the claims for premium for the best Management of a Farm, submit the following Report: That they have received but four claims on this subject, viz. from the Hon. William Bartlet, of Newburyport, for his farm in Methuen; from Col. Jesse Putnam and Capt. Dudley Bradstreet, of Danvers; and from Mr. Isaac Dodge, of Hamilton.

Each of these farms was visited by the Committee in the month of July, when vegetation was most flourishing; and the several statements of the claimants annexed to this report have been carefully examined.

The farm of Mr. Bartlet in Methuen is in a very high and superior state of cultivation. It consists of about two hundred acres of land; conveniently divided into lots; and well fenced with the best of fences, Stone Wall. The order and neatness with which all the business of the farm is conducted merits high approbation. The lands have been much improved by the removal of the stones for the building of walls and laying covered drains, by means of which waste lands have been converted into fine cultivated fields. Great attention is paid to obtaining manure, and an abundant supply is made to the farm. But most of all were the Committ

* Letters of Agricola, page 220.

ased with the habits of sobriety and temperance inculcated upon the laborers, and with the fact, that so large a farm, employing many hands, was carried on entirely without the use of ardent spirit at any season of the year. Could our farmers generally imitate this example, they would soon find themselves relieved from the heaviest tax with which they are at present burthened. Your Committee are well aware of the advantages, in point of capital, possessed by Mr. Bartlet, over most other farmers in the county. Still they consider the improvements he has made, such as are within means of, and worthy of imitation by, our farmers generally; and they are of the opinion that he is entitled to the first premium of *thirty* *bars*.

The farm of Col. Jesse Putnam, of Danvers, consists of about 114 acres of land, and is well cultivated. The orchards are superior to any have seen in the county, and the management of the young trees appears to be excellent. The methods pursued by Col. Putnam of subduing the rough lands, and reclaiming his wet meadows, and turning them to fertile fields, are highly judicious. Great attention has been given on this farm to the making manure; and much benefit has been derived from the swine his particular. On the whole, your Committee are of the opinion, that Col. Putnam is entitled to the second premium of *twenty* *bars*.

The farm of Capt. Dudley Bradstreet, of Danvers, consists of about 192 acres of land, and is well cultivated. The careful and accurate mode of proceeding pursued by Mr. Bradstreet is worthy of approbation. The crops on his farm appeared very fine; and his mode of management in general worthy of imitation. The Committee were particularly pleased with the cultivation of a piece of swamp land, which the skill and industry of Mr. Bradstreet has made to produce an abundant crop of English hay.

On examining the farm of Mr. Isaac Dodge, of Hamilton, the Committee are fully convinced in the opinion expressed in the report of the last year. They consider Mr. Dodge entitled to the approbation of the Society, for his industry and skill in the cultivation of lands, and the zeal he has manifested in promoting its interests. There has not been sufficient time since the last year for him to make the essential improvements. His crops, the last year, appeared very fine.

Your Committee cannot close this Report without expressing their regret, that there are so few competitors for the premiums on management of a farm. They are sensible that there are farms in every town in the county that would well bear an examination; and perhaps many that would compare well with these they have been called upon to examine; but as the proprietors did not come forward to their claims, it was not in the power of the Committee to bring them into the comparison. Should these premiums be continued, it can be hoped that all our good farmers will volunteer their assistance in a cause, in which to fail is no disgrace, but to succeed is the highest honor.

JOHN ADAMS,
TEMPLE CUTLER, } Committee.

Danvers, November 20, 1822.

NEW PERIODICAL WORK.

A new publication entitled "Collections, Historical and Miscellaneous, and Monthly Literary Journal," published by Jacob B. Moore, has lately been established at Concord, N. H. It has reached the 4th No. and merits liberal patronage and extensive circulation. It may serve to perpetuate the memory of worthy men, and worthy deeds, which, without such a work, might float down the current of time into the dead sea of oblivion. Some original pieces which have appeared in the work possess much merit. The biographical part must be interesting to every true American, as it bestows and promises the meed of fame to those who have benefited their country, and adorned society. The following is extracted from the last number.

FIRST SETTLEMENT OF NEW HAMPSHIRE.

Wide o'er the wilderness of waves,
Untracked by human peril,
Our fathers roamed for peaceful graves,
To deserts dark and sterile.
Their dauntless hearts no meteor led,
In terror, o'er the ocean;
From fortune and from fame they fled,
To heaven and its devotion.
Fate cannot bind the high-born mind
To bigot usurpation:
They, who had left a world behind,
Now gave that world a nation.

PAINE.

Though the adventurers who formed the humble colony first planted at Pascataqua were of different habits from the pilgrims who settled at Plymouth, and may not have imitated their examples, nor have been drawn into the close ties which mutual danger serves to create and strengthen,—there is still something interesting, to us at least, in the circumstances of their landing. The discovery of this continent had already freighted the four winds with exalted ideas of its extent and value, when the intrepid Smith, born with "a roving and romantic genius, and delighting in extravagant and daring actions,"* directed his attention to North America. He had explored the coast of Virginia, been a captive among the natives, and a father to the infant colony,—by his courage intimidating, or by his address controlling the fancies of the Indians; and now extended his enterprises still farther north into unknown seas, ranging from east to west, and touching at the various islands stretching along the coast as if to defend the newly discovered continent from the violence of the stormy Atlantic. Smith landed upon the islands formerly called by his name, but at present known as the Isles of Shoals.†

To the country east of Virginia he gave the name of *New England*. New Hampshire was called *Laconia*. There are found in most countries, men hardy enough to brave the rigors of the ocean and inclement seasons, for the prospect of gain, or of personal liberty. A howling wilderness, though its front may inspire awe, cannot subdue the hopes of the adventurer. He fancies mines of wealth concealed in the recesses of the country—golden dreams cheer his midnight slumbers, and inspirit his hours of wakefulness. Or on the other hand, the oppressed may court the dangers of the deep, can they but afford a refuge from the soul-sickening scourges of religious tyranny. While most of

* Belknap.

† Smith discovered these islands in 1614. It is not known for what reason their name was altered. In the deed of the Indian sagamores to John Wheelwright in 1629, "the Isles of Shoals, so called by the English," are included.

the settlers of New England had one of these objects in view, it is not difficult to perceive that the former had a powerful influence with the early inhabitants of New Hampshire. A few humble fishermen from London were our common fathers. Cheered alike with the prospect of accumulating wealth, and tasting its enjoyments, they pitched their tents at *Little Harbor* on the Piscataqua, in 1623. The season of their landing is well known, and the place, with many circumstances attending it. It is now NEARLY TWO CENTURIES SINCE THE EVENT TOOK PLACE.

From the New York National Advocate.

CONSUMPTIONS.

On looking over the bills of mortality for the year 1822, we find that 1692 men and women died in this city, and out of nearly ninety different diseases 624 were of consumption alone. It would seem from the number of victims to this fatal disorder that it is an endemick disease. This is not the fact, our climate does not produce this disease; it is the origin of carelessness, and indifference to clothing, habits and changes of atmosphere. A common cold caught from carelessness, and running into a confirmed consumption by inattention, may be cited as the undeviating origin, and if we find children pale, sickly and puny, we shall discover that their parents were affected with a touch of this insidious disease. We have always believed that wet or damp feet were the cause of colds and consumptions, and how easy it is to sacrifice a little pride and fashion to ensure health and comfort? Yesterday was sloppy walking, though a fine atmosphere prevailed, yet we saw many ladies walking in Broadway with prunella shoes. A thin covering of leather only kept the wet from penetrating the soles of their feet and shooting up its damp and deadly venom to the breast, there first to produce a cough and then a slow hectic disorder, until the fell monster, consumption, hurries them to the grave, full of hope, youth and expectation.

Now, is it a great sacrifice to wear neat over-shoes, and keep their feet dry? Will it ruin their shapes if they keep on their flannels a little longer? Is it any consequence what Billy Fribble says about their appearance on the promenade? Suppose they catch cold and it wears off; they must nurse themselves, bathe their feet, drink catnip tea, barley water, and lie in bed a day or two; be nursed, coaxed, and scolded; and, before they are strong again, out they sally, with kid slippers and naked elbows; and then in bed again, and send for Doctor Hosack.

We submit to our Knickerbockers, whether, in good old times when women wore pattens, and clattered over the muddy pavements, they ever died of consumptions? Whether they ever had inflammation on the lungs, or rheumaticks, when they dressed in stiff brocades and quilted petticoats? Rely upon it, that in the bills of mortality we shall have to add a new disease, viz: the bon ton.

The whole population of Calcutta is found by a late accurate estimate, to be 177,247. Besides these, who are residents, there are about 100,000 who daily enter and depart from the city. About 13,000 of the inhabitants are nominal Christians, 48,000 Mahometans, and 118,000 Hindoos.

ADDRESS

OF THE HON. S. HALE, DELIVERED BEFORE THE CHESHIRE (N. H.) AGRICULTURAL SOCIETY, OCTOBER, 1822.

It was not without reluctance, my fellow citizens, that I consented to undertake the duty of addressing you on this occasion. Although the first days of my existence—the days to which I look back with most pleasure—were employed in the cultivation of the earth, yet for many years other pursuits have occupied the greatest portion of my thoughts and my time. I could not, therefore, I was sensible, communicate to you information derived from my own experience; but the reflection that you would doubtless have the candor to excuse my deficiencies, diminished my reluctance to perform the duty assigned me.

But however unacquainted I may be with the art of Agriculture, I have ever felt for the cultivators of the soil the respect which is justly due to that profession which supports all others. When therefore Agricultural Societies were first organized in New England—when the farmers instituted their peculiar and appropriate holidays, in common with others, I indulged with pleasure the expectation, that by means of these their prosperity would be increased, and the profession attain to higher estimation in society. This expectation was strengthened by a recollection of the conduct of the other professions. The clergy have their associations; the lawyers hold bar meetings; the physicians have their medical societies, and occasionally assemble to communicate to each other the discoveries and improvements they have made. If to all these professions this practice had been found advantageous, it was but natural to believe that farmers would derive equal benefit from a similar practice.

Permit me to express my sincere regret that these Societies are now regarded with less favor than formerly; and my astonishment that their warmest opposers are found among those whom they are calculated most to benefit. And what are the objections against them? It has been said that the premiums are often injudiciously and unjustly bestowed. Instances, no doubt, have occurred where the most worthy claimants have failed to obtain them. But the instances are few, and much fewer than they are supposed to be. Greater confidence ought certainly to be placed in the decisions of awarding committees who are selected for their skill and act under a sense of responsibility, than in the opinions of casual observers and disappointed competitors. But it cannot be pretended that in any instance a premium has been obtained without some degree of merit in the receiver. If granted to a degree inferior only to the highest, it has certainly answered a valuable, if not the most valuable purpose. It has rewarded industry and skill, and its effect to stimulate others to exertion is diminished in a slight degree, if diminished at all.

It is another objection, that by the offer of a premium for the fattest steer or ox, and for the most abundant crop, the farmer is enticed to bestow all his care upon one animal or upon one acre, to the neglect of all the rest. The reply to this objection is, that it is not for the fattest animal that the premium is offered, but the one having the most points of excellence; and to raise one possessing these does not require that

the others should be neglected. It requires only a good judgment, improved by careful observation of the different breeds and a due degree of care and attention. As to crops, it is by no means clear, that the neglect of a part of the land will render them less abundant. Indeed it hardly admits of doubt, that the quantity of manure usually applied to two acres would, if applied to but one, yield, in most cases, the same profit to the farmer. Any expedient, therefore, which can entice him to till fewer acres, or to make a greater quantity of manure, must be beneficial to him and to the country. It certainly is not useless wisdom to know what is the utmost power of the soil and what the utmost efficacy of manure; nor can there be danger that the farmers of this country can be very soon induced to depart too far from the very prevalent error of bestowing their labor and spreading their manure upon too large a surface.

It has often been objected that the expenses necessary to be incurred to obtain a premium are generally greater than the amount of it, and the inference is deduced that the offer of it produces more injury than benefit. The fact is seldom so; but were it often so, the inference would be incorrect and unwarranted. Does no permanent benefit result from the experiment made and the knowledge acquired? Has not the successful competitor, and not he alone, but all the competitors, ascertained some new principle which they can afterwards apply with greater skill, or discovered some new method which they can afterwards simplify and extend? Let me illustrate my meaning by a reference to the mechanic arts. Suppose a premium of one thousand dollars had been offered to the person who should invent the best machine to separate cotton from the seed. This premium although large, would not perhaps have been a sufficient recompense to the illustrious Whitney, for the machine he first contrived and completed. But in making the first, he might have ascertained what was possible to be effected; and in making the second and the third have learned how to simplify the structure in such a manner that he could afterwards erect a machine at even less expense than the cultivator of cotton could well afford to pay. Such is precisely the case in Agriculture. The farmer who has ascertained by an experiment, which the offer of a premium may have encouraged him to make, that an acre of land can be made to produce eighty or a hundred bushels of corn, may, at successive trials, arrive at the same result in a more simple manner. He may ascertain that some parts of the process may be omitted without detriment, and that others may be executed at much less expense than at first. And this will be but a small portion of the benefit that will accrue. Others besides the competitors will be induced to make a trial. Inquiry will be awakened as to the means which were used to obtain such astonishing success. A knowledge of the best mode of cultivation will be extensively diffused. The reputation and price of our lands will be raised; and fewer enterprising young men will leave the home of their fathers to bury themselves in the western wilderness. Ambition will be excited; higher aims will be entertained; a whole country will feel the invigorating influence, and advance a step forward in the progress of improvement.

It has moreover been observed, that as the poor are unable to incur the necessary expenses, the premiums are gained principally by the rich. If the poor cannot, and do not, incur the expense of making an experiment, the objection just considered loses all its force. If the rich make expensive experiments, the mode and results of which will be known to all, and will contribute to the benefit of all, it is certainly not unjust that they should receive from a fund to which they largely contribute, a partial, if not entire, remuneration. The farmer who considers himself poor ought indeed to rejoice that the rich can be induced, partly by the prospect of recompense, and partly by the love of distinction, to make experiments in Agriculture, from which, if unsuccessful, they alone will sustain injury, but from which, if successful, not only they, but he and his country will derive essential advantage.

They who make these objections take too narrow a view of the operation and effect of these societies. They look at them only in the act of awarding premiums. They suppose that their influence is felt by the competitors only, and that it ceases the moment the premium is paid. Such a view is indeed quite too narrow and circumscribed. Far more powerful and extensive is their influence. It is felt by many who are not conscious of it; and by many who regard with indifference, if not hostility, the cause of their own improvement. They rouse the attention of farmers; they elicit facts, statements and theories; they collect and again spread information; they elevate the agricultural profession, by bringing the members of it together, by making them acquainted with each other, and by shewing them their collective strength. The emulation they excite animates every farmer to greater and more constant exertion. If one person raises a crop unusually large, his neighbors, ashamed to be left far behind, will be stimulated by pride as well as by interest, to strive to approach as near to him as possible.

But our experience, my fellow citizen, proves the beneficial effects of these societies. The appearance of our country has greatly improved since their first institution. This remark is supported by the testimony of almost every traveller. And they who have constantly attended our cattle shows, assert that at every recent exhibition the stock offered has excelled that which was offered at the preceding one; that the young cattle have uniformly surpassed the old; and that the improvement has been plainly visible, and by no means trifling in degree. Will any one say that this effect may be attributed to some other cause? Let him then point out that cause, and by comparing with the one to which I refer it, demonstrate its superior efficacy.

Not to our own experience only would I appeal. That of England fully and powerfully corroborates ours. In that country, Agricultural Societies have been long established; and since that establishment—I repeat now the remark of accurate and critical observers—the art of husbandry has been constantly advancing and to them this advancement has been generally attributed. No example or testimony can be more respectable than that of English husbandmen who cultivate their own farms. They live in that happy medium between luxury and

erty which gives full scope to the exertion of the judgment, and summons all the faculties of the mind to active and constant exertion. In that country, too, Agriculture is not only practiced as an art, but it is also studied as a science. The farmer, as well as the clergyman or physician, has his appropriate library. He gains knowledge by reading in the closet, as well as by observation in the field. The first of the age—he to whom Bonaparte assigned the palm of excellence—has, at the request of the Board of Agriculture, devoted much of his time to making experiments calculated to render the science of which he is master, subservient to that which it is *their* official duty to encourage. The experiments were detailed in lectures delivered before the Board. These lectures have been published in a book. They have been read throughout Europe and America; and have, by intelligent Agriculturists, been pronounced highly useful and instructive. That they are the production of a man who is not a farmer, and that they have been printed and published, are not supposed to be circumstances which ought to render them unworthy of attention.

The prejudice against book-farming, as it is called—but to use a more correct expression, the prejudice against consulting and regarding the experience of others—exists no where but among the farmers of this country. If we trace it to its origin we shall find that our ancestors deserve less censure for imbibing it, than the present generation for submitting to its influence. When our country was settled, the land was rich from the decomposition of all the vegetables which for ages had grown and decayed upon its surface. It required no skill to obtain from this soil an abundant harvest. Hard and constant labor only was requisite; and the strength of sinews was of course more highly prized by the farmer than experience and sagacity which could profit him nothing. That the agricultural books then existing in our language, were adapted to a different climate and to a country where the soil had long been subjected to the yearly exactions of the husbandman, rendered them entirely inapplicable and useless here. When consulted and followed, as they doubtless sometimes were, by emigrants from the milder climate and exhausted fields of England, they led astray those who had been accustomed to confide in them. The well-instructed, intelligent and systematic farmer was unable to succeed no better than he who was ignorant but industrious. Hence arose an opinion that all books on the subject of husbandry were not only useless but injurious; that agriculture could derive no aid from science; that any person who was able to labor, but unfit for every other profession, was yet fit to be a farmer. And what effect could such opinions, long and generally entertained, produce, but the degradation of a profession, which, as it is the first in usefulness, ought to be held highest in honor?

The circumstances which gave rise to the prejudice and opinions I have mentioned exist no longer. Our good soils have, by constant culture, been exhausted of those properties which render them fertile. Nature failing, art must here, as well as in England, be pressed into our service. The rules and precepts of art

must be ascertained by experience and observation; but that they may be extensively useful, they must be published, and by this means be preserved and placed within the reach of all. Will any farmer disdain to consult these books? Will any say that in this country the art of husbandry has already reached perfection? Will any say that he is too wise to profit from the recorded experience of others? This in effect, is the language of those who proscribe the perusal of Agricultural publications; and as it is one of the objects of Agricultural Societies to obtain materials for such publications, this, in effect, is the language of those who deny the usefulness of Agricultural Societies.

Believing that these Societies, could they receive sufficient patronage to enable them to produce their full effect, would be highly beneficial to the country—would conduce to the improvement of husbandry, and add respectability to the profession of farmers, I have endeavored to refute the principal objections which have been raised against them. These objections have lately been urged with increased zeal and with pernicious effect. They have deprived our country societies of the public patronage. I cannot but hope that hereafter a different sentiment will prevail—that our intelligent farmers, discarding unfounded jealousy, will, by all the means in their power, foster institutions which reason, our own experience, and the experience of others concur in pronouncing eminently useful.

(To be concluded in our next.)

From the Albany Plough Boy.

MR. SOUTHWICK—In our neighborhood, we have made up a kind of a reading room, and take most of the Albany papers.

Our attention has lately been a good deal turned to the fate of Agricultural Societies, as we notice some sharp shooting in the papers, on that subject.

We have heard a report, as how the first Legislature under the new Constitution, will, in all probability, repeal the agricultural law.—Last evening we had a pretty full meeting, and considerable debating on the subject, something like what you call lobby members.

Squire J—s who you know talks a great deal, and sometimes he is quite eloquent, as he was once a considerable of a lawyer, took an active part. Capt. S—th was warmly opposed to these societies. He finished the remnant of his glass, and said—"I am not ashamed to own I was at first, when the fever was up, a friend to these agricultural societies;—but, says he, I've tried three times for a premium on swine, but they were given to rich farmers. My wife carried some excellent flannel at the last Fair, but, because it was not made of merino wool, the premium was given to Col. T—'s wife, who you know is a rich man too. My eldest daughter carried a pair of blue knit stockings, and our Polly made a straw hat—but all in vain—we got no premiums; and, so we are all now determined to pull down the societies if we can; for it is a confounded shame, that the state should spend TEN THOUSAND DOLLARS a year, to give rich farmers in silver plate, and we poor farmers must be taxed and ruined, to pay the piper. It is all parade and nonsense be assured."

Smoking my pipe quietly in a corner—so says I, now I see Capt. S—th, that the patriotism of your family, all lies in your pocket.

Squire J—s, all this time, appeared absorbed in thought, with his chin resting upon a well worn-round head of an old hickory staff, "Well, says he, gentlemen, I have been listening to your debate, on a subject of great importance. I thought as Capt. S—th now does, when these Cattle Shows first began in this country—but I am not such a fool as to shut my eyes and ears against truth—what I see I believe, although it appears to me like magic, yet so is the fact. Now, let us, in imagination, strike a circle, for instance, of ten miles round this spot; and then let us fairly compare the general state of the farms within the circle now, to what they were only four years ago—also our live stock—and our household manufactures; the answer we all know—well, now hold on there; and then let us look at the fences—clean barn yards—brushing up on all sides—deny this if you can, Capt. S—th—don't you observe also, that our wives and daughters are brushing up, and are more cheerful than formerly, when we could hardly bring both ends to meet. For my part, I am a friend to the new Constitution, a full blood buck tail, if you will have it so; and for that reason, I shall be mortified, if the agricultural societies should be pulled down the first year of the new Constitution. Besides, said the Squire, rising upon his staff, and brightening up into eloquence—besides, gentlemen, it will be as vain to attempt to arrest the progress of these agricultural societies, as to check the descent of the Hudson River in a freshet.

"The tide of public opinion will roll on—the light of science cannot be concealed—the good sense of the community will eventually predominate—the moment the state is liberated from its canal responsibilities the cause of agriculture, Mr. H. says, must be sustained with renewed vigor and animation. So say I. Enough has been done to insure that result—the seed are widely scattered, and sown on a luxuriant soil—in the mean time they germinate and shoot forth in all their beauty and splendor.

"Posterity will be blessed by its fruits—and will not fail to revert their eyes to the present day with astonishment, should the law be repealed."

Your esteemed friend,
PETER PLOUGHJOGGER.

PAUPERISM.

We have (says the Baltimore Chronicle) already, and on more occasions than one, taken the liberty to remark that the only way to abolish pauperism, is to repeal all our poor laws altogether, to cut up the whole root and branch, without any sort of favor or affection; that the malady resides in the law making provision for the poor, which when abolished will bring the evil along with it. Pauperism may be denominated vice, and indolence, put out to nurse, and is it any wonder that both should thrive under such liberal munificent patronage? We make provision for paupers with as much legislative gravity, as if it were our object to establish Colonies all over the Continent, consisting of such meritorious individuals. The sin and iniquity of this may be traced to the law—a fact that has been proved, by statistical details, from the most unquestionable documents.

THE FARMER.

BOSTON:—SATURDAY, APRIL 5, 1823.

The Farmer's and Gardener's Remembrancer.

APRIL.

FENCES.—As soon as possible put your fences in thorough repair. Some farmers have a knack at teaching their cattle to jump over or shove down fences. They begin with a weak fence, three rails high perhaps, or thereabouts. As soon as their cattle have learnt to leap over or throw down such a fence they add another rail, and now and then a prop or a stake, which the animals soon learn to "make nothing of." The farmer then does what he ought to have done in the first instance, makes a good *five-rail* fence. But his cattle, having by this time found out their own strength and agility, are not to be stopped by such trifles, and if they do not become quite so nimble as the "cow that leaped over the moon," and as hard to confine as Baron Trenck, they take all occasions to show how badly they were brought up, and their owner loses property as well as credit by his neglect of early discipline.

EARLY POTATOES.—The best time to plant potatoes for winter's use, feeding stock, &c. is said to be about the latter end of May, or the first of June; but it would be good economy, generally speaking, to plant an early sort on early ground to feed your hogs, before your Indian corn is ripe. You may thus, perhaps, get the start of your neighbors, and bring your pigs to a better because an earlier market. Plant the earliest sort for this purpose; some say the English Whites (as they are called) are best, and will do to dig in July. Every farmer, no doubt, thinks he knows how to plant potatoes without our advice. However, it can do him no harm to attend to what we have to say upon the subject, and if he pleases he may take his own way afterwards in spite of us.

As good and as expeditious a way as any for putting the seed into the ground is as follows: "After the ground is prepared, by ploughing and harrowing, cut furrows with the horse plough, forty inches apart; drop the sets in the furrows; then pass the plough along the back of each furrow, which will throw the earth of both furrows upon the sets; and afterwards level the ground with the back of a harrow, or with a harrow that has short tines if you will; but it is of no great consequence whether it be levelled at all. Another method of planting is, to plough the ground plain, keeping the furrows straight and regular, and drop sets in every third or fourth furrow."*

A writer in the *American Farmer*, vol. i, p. 154, recommends a similar process in planting, but prefers having the rows but three feet, and the seeds containing one eye, or two at the most, eight inches apart, in the rows, and each cutting or seed should weigh about the third of an ounce avoirdupois. At this rate an acre will require about 15 bushels of seed. If the ground be rich enough without manure, the furrow for the row need not be more than four inches deep, otherwise it ought to be six. In dry sandy land put the seed under the manure; if otherwise, put it on the top.

With regard to the choice of seed potatoes, their size, &c. the following remarks appear to

us correct. "Some economists begin by paring the potatoe, and planting only the skins; others less saving, cut the potatoes into slices, leaving a single eye to each slice; and a third class, almost as provident as the other two, are careful to pick out the dwarfs, and reasonable enough to expect a progeny of giants. These practices cannot be too much censured, or too soon abandoned, because directly opposed both by reason and experience. In other cases, we take great pains, and sometimes incur great expense, to obtain the best seed. In the cultivation of wheat we reject all small, premature, worm eaten, or otherwise imperfect grains; in preparing for a crop of Indian corn, we select the best ears, and even strip from these the small or ill-shaped grains at the end of the cob; so also in planting beets, carrots, parsnips and turnips, the largest and finest are selected for seed. The reason of all this is obvious. Plants, like animals, are rendered most perfect, by selecting the finest individuals of the species from which to breed. Away, then, with such miserable economy, and instead of planting skins, or slices, or dwarfs, take for seed the best and largest potatoes; those having in themselves the most aliment for the young plants; place them in your furrows ten or twelve inches apart, and cover them carefully with earth."*

The opinions of the writer above quoted coincide with facts as developed by many experiments which we have heard or read of, particularly with those made by a gentleman of Ryegate, Vt. and detailed in the *New England Farmer*, No. 7, p. 53. By these it appeared that "large potatoes are much better for seed than small ones, and that it is better to cut them than to plant them whole," and that the middle parts of potatoes used for seed will produce better crops, other things being equal, than the ends.

From an experiment made by a farmer in the employ of the Hon. Josiah Quincy, the particulars of which are given in the *Mass. Agricultural Repository*, vol. v, p. 64, it appears that the product of certain rows, planted with whole potatoes, exceeded an equal extent of adjoining rows, planted with cut potatoes *more than one third*. This is very different from the result of the experiments of the gentleman who sent us the communication from Ryegate, above referred to. We are not able to conjecture what could be the cause of this difference; but we should apprehend that some disadvantage might accrue from cutting potatoes in consequence of the juice of the potatoe being wasted through the wounds. Mr. McMahon advises to cut the potatoes "a week before planting, in order that the wounds should have time to form a dry crust, for if planted at this season immediately after being cut, they would imbibe too much moisture, many of them rot, and the rest be greatly weakened thereby." The *Farmer's Assistant* says that wetting seed potatoes, and then rolling them in Plaster of Paris, immediately before planting, greatly assists the crop.

It should seem by some experiments detailed in the *Pennsylvania Farmer*, and quoted in the *Farmer's Manual*, page 55, that large potatoes cut into sets or pieces, with two eyes each, produce more when set at nine inches distance in

the rows (being planted according to the drill method) than at six or twelve inches distance.

Coarse manure answers best for potatoes.—Fallen leaves taken from the woods are recommended by a correspondent of the Bath Society in England. This kind of manure, says the writer, causes potatoes to be much more meal and of a finer flavor than when they are produced by the application of ashes or dung.—There are many farms where rotten leaves, and the soil which is made by their decay, may be obtained in great quantities, and at a very trifling expense. Dry straw, damaged hay, &c. are said to be fully equal for potatoes to the best rotted dung. Indeed, on some accounts, straw hay, &c. are to be preferred as they give potatoes of the best quality, and equal in quantity to rotten manure from the dunghill. Dry straw cut with a machine, would probably be equal to any manure for potatoes.

A British writer gives the following rules relative to the management of seed potatoes, &c. which we think worthy of being submitted to our practical farmers. 1. "The potatoes for seed should be kept in a separate pit, which should never be opened, until the time when the potatoes are to be cut into sets: for if vegetation commences any time before the potatoes are to be planted, it is apt to occasion the curl. 2. The sets should be placed about a foot separate from each other. 3. Many crops are spoiled from being planted too deep in the ground. This ought carefully to be avoided."

We do not insist upon the farmer's planting his potatoes in the drill method, especially if his land be rough, stony, or hard to cultivate. In such case the old mode of planting in hills is probably preferable. But in a rich, mellow soil, the drill method is undoubtedly best. Dr. Deane observed as follows—"One of my neighbors planted in his garden, drills and rows of hills alternately of equal length, and equally manured; when he dug them he found the drill rows produced twice as much as the other. It is not more labor to lay the dung in drills than in hills; and the labor of hoeing is not increased."

* *Systems of Husbandry in Scotland*, vol. i, p. 426.

† Deane's *N. E. Farmer*, p. 226; Wells & Lilly's ed.

MR. OSBORN'S POEMS.

We have this day published the proposals of Mr. Selleck Osborn, for printing, by subscription, a Collection of Poems. We have seen some specimens of that gentleman's poetry which induce us to entertain a favorable opinion of his powers as a poet. What we have perused have appeared from time to time in newspapers, and we were pleased with them. We considered them as correct, moral, and sentimental effusions, exhibiting the inspiration of the genuine Bard, divested of that wildness and eccentricity which characterize the productions of many modern British lyrists, who too frequently in search of sublimity bid adieu to common sense, and resemble more

"A wild goose lost in hazy weather,"
than a genuine bird of Jove, soaring to meet the sun in the midst of the Empyrean.

It is true we have heretofore been pitted against Mr. Osborn in political contests, but we have long since laid down the weapons of our warfare; and besides, we hope we resemble—so far as candor is concerned—the critic mentioned by Pope,

"Who to a friend his faults can freely show,
And gladly praise the merits of a foe."

We wish Mr. Osborn success, and hope the American public will take this opportunity to wipe away a standing theme of reproach from foreigners, that nobody reads or buys an American book.

* Deane's *N. E. Farmer*, p. 347; Wells & Lilly's ed.

† Treatise on Agriculture, first published in the Albany Argus.

FARMER SUMMARY OF NEWS.

FROM GIBRALTAR.

The brig Jew, Capt. Deane, arrived in this City on Friday last, and brought Gibraltar papers to the 15th of February. By these it appears that the Spaniards are preparing to breast the shock of battle, without exhibiting any symptoms of dismay. The Cortes have voted to raise 30,000 additional troops, increasing the army to 124,579 men, and have taken measures to fit a naval armament adequate to the defence of the straits. Gen. Mina is confirmed in the command of the army of Catalonia, Gen. Ballasteros is appointed to the command of Arragon and Navarre; an army of reserve is to be assembled near Madrid to be commanded by Count Abisbal. Thanks were voted to Gen. Mina for his army by the Cortes, for having obtained command of the forts of Urgel, which were surrendered on the 3d of February. On the 20th Jan. Brig. Gen. Llorens was killed by the enemy, and all the count-houses within one league of it, in consequence of the inhabitants being inimical to the Constitutional Government.

Gen. Donnell, Commander in Chief of the King's army in Navarre and Biscay, has issued a proclamation to his troops, which is full of pomposity. In this, he says that "The tyrannic sway of incredulity and rebellion is forever at an end. The worthy Head of the august dynasty of the Bourbons has sent forth from Paris, the thunderbolt which is to hurl it down in ruin, where, as a last asylum, some of her unnatural sons had attempted to enthroned it," &c. &c.

LATEST FROM EUROPE.

Capt. Curtis, from London, arrived in Boston on the morning of the 2d inst. and brought papers to the 24th of February. These have a somewhat more pacific aspect than the last preceding accounts. It is now said that the departure of the Duke d'Angoulême, the Commander in Chief of the French armies, destined for the invasion of Spain, has been deferred till the end of March. He, however, may be merely to avoid a winter's campaign. The merchants of Havre have prepared a petition for peace. According to the Courier, G. Britain has determined on a "dignified neutrality." Public opinion, however, that is the opinion of the greater part of the population throughout Europe, is decidedly opposed to a war with Spain. Should France undertake a menaced crusade against the liberties of that country, her troops will be accompanied with the execrations of every friend to humanity throughout the civilized world; and every victory (should they obtain any) would be the source and signal of bitter lamentation to every human being who is not an enemy to the human race.

Latest from Canton.—Capt. Ashly, from Canton, brought papers and advices to the 1st December. It appears by them, that the first account of the extent of the great calamity of fire experienced there, is, as not unusual, much exaggerated. It had, however, been ascertained that 4,500 houses, &c. had been destroyed. The Chinese government had adopted measures for the relief of the sufferers, and for rebuilding the desolate suburbs.

Tremendous Snow Storm.—Almost every paper, week-days, furnishes us with something sublime under the head. It has not, however, been quite equal to an Alpine avalanche; and we have heard of no city, town or village having been buried for quite so long a time as Jonah remained in the bosom of the deep. It is true that on Sunday night and Monday morning last, Emory Boreas mustered his troops, "the light militia of the lower sky," and these, under the command of Gen. Frost, a very blustering character, effected a temporary non-intercourse between town and country; and then undertook to barricade the doors of many peaceable inhabitants of the good city of Boston. But Gen. Sunshine and Com. Southwind have attacked the airy castles of the tyrant of the north, and he is now in full retreat towards his head quarters at the north pole.

CHARLES VIGNOLES, Civil and Topographical Engineer, has published in N. York, a work entitled, "Observations upon the Floridas." The National Gazette says, "this work contains more abundant, precise, and well digested information concerning the Floridas than any other extant."

Lord Byron, says the Charleston Courier, is coming to this country. We are sorry for it. He will not be pleased with the United States. Neither their climate nor their manners are sensualized, as in Italy. He will find that his mind has travelled in advance of his person, and withered the flowers that he hopes for in his path. He will behold the pious, recoiling from apostate genius—the beautiful, shuddering at the profanation of innocence—and the virtuous republican, sneering at the vices of peerage.

Public Dinner.—A public dinner was given on the 20th ult. to Joseph Shearer, Esq. of Pittsfield, Mass. by a number of gentlemen of that town, "as a token of their gratitude for his many acts of munificence to the town."

Fires.—On the 20th ult. the Dye House, belonging to the Pittsfield Woollen Manufacturing Company, was destroyed by fire, with most of its contents. Loss estimated at \$2000. The origin of the fire cannot be accounted for.—The Woollen Factory at Hempstead Harbor, L. I. was totally destroyed by fire on the 25th ult. with all the out buildings, stock and machinery. The loss of property is estimated at about \$15,000.

Messrs. Bliss & White, of New York, have in press a new American novel, entitled "*The Wilderness, or Braddock's Times.*" Those who are acquainted with its author entertain sanguine expectations of its success. We understand (says the Commercial Advertiser) that this novel, in which the immortal Washington is introduced in the character of an *unsuccessful lover*, will be published in about ten days.

Capt. C. G. Ridgely has presented to the University of Maryland for the Museum, a collection of Minerals formed during his late visit to S. America, and which includes several of the most interesting productions of Peru and Chili, principally from their gold and silver mines. Capt. R. has also presented, with other general curiosities, a couple of specimens of Earthen Ware, found near the tombs of the Incas, which show that considerable skill in the art of Pottery existed among the ancient Peruvians.—*Balt. American.*

PROPOSALS,

FOR PUBLISHING BY SUBSCRIPTION A COLLECTION OF

FUGITIVE POEMS.

MORAL, SENTIMENTAL AND SATIRICAL.

BY SELLECK OSBORN.

THE author of the articles which are to compose this volume, never wrote with a view to fame or profit; he merely obeyed the impulse of the moment. Of those which were sent to the press he seldom retained copies; and they were usually forgotten by him, until recalled to his mind by public prints, which have often gratified him by flattering notice, but which have also frequently annoyed him by mutilations which were extremely mortifying. This last circumstance (besides private solicitations and other motives) has induced him to collect, with considerable pains, his scattered effusions, and to add some unpublished pieces; which altogether will have at least the merit of being genuine; and perhaps that of inculcating to the best of the author's capacity, good principles and amiable sentiments—excluding all matters relative to party politics. Disinterestedness is not pretended: It is confessed that a liberal patronage would be very acceptable, on various accounts. The author confides in the tried zeal of his friends throughout the Union, for the promotion of his interest in this case.

The volume will be neatly printed, in a duodecimo form of 200 pages, on handsome paper, with type entirely new, and well bound in boards, at one dollar, payable on delivery.

A commission of 12 per cent will be allowed to agents on all returns made.

Gentlemen holding subscription papers will please return them by the first of June next, or as soon as reasonable efforts have been made to obtain subscribers.

Editors of newspapers will oblige the author by republishing or noticing these proposals, and receiving subscriptions.

Communications to be addressed to the author at Merchants' Hall, Boston, Mass. April 5.

NEW GARDEN SEEDS.

FOR sale, by GEO. MURDOCK, No. 14, Market Square, a great variety of English and American GARDEN SEEDS, of the last year's growth; consisting of early Frame, Hotspur and Charlton Pease; early and late Cabbage; early and late Cauliflower; Sweet Marjoram, Thyme, &c. with every other Seed suitable for a Kitchen Garden. Also, 40 lbs. Mangel Wurzel or Scarcity—100 lbs. Ruta Baga or Swedish Turnip—a quantity of Armack or Carrot. March 29.—6w

SAFFORD'S STRAW CUTTER.

THE utility of cutting Hay, Straw, and other substances for feeding cattle, is now so universally acknowledged that any remarks on the subject must be deemed superfluous. The following Certificate will therefore be conclusive of the merits of the above mentioned Machine.

Boston, March 22, 1823.

We, the subscribers, have in operation a Straw Cutting Machine invented and exhibited in this city by Noah Safford, and we do not hesitate to say that in our opinion it exceeds any other we have ever seen, for cheapness, simplicity, despatch and durability.

STEPHEN HARTWELL, SPURR & HOLMES, HEZEKIAH EARL, ANDREW SLATER.

The above mentioned Machines may be had of J. R. NEWELL, at the Agricultural Establishment, No. 20, Merchant's Row, Boston. Price \$15.

PRICES OF COUNTRY PRODUCE, &c.

[Revised and corrected every Friday.]

		FROM	TO
		D. C.	D. C.
ASHES, pot, 1st qual.	ton.	145 00	147 00
" pearl do.		155 00	157 50
BEANS, white,	bush	1 00	1 10
BEEF, mess, 200 cwt.	bbl.	9 00	9 50
" No. 1.		8 00	8 50
" No. 2.		6 50	7 00
BUTTER, inspect. 1st qual.	lb.	14	15
" 2d qual.		12	13
small kegs, family,		15	16
CHEESE, new milk		7	8
FLAX		8	9
FLAX SEED	bush	85	90
FLOUR, Baltimore, superfine,	bbl.	7 50	7 62
Genesee		7 50	7 75
Rye, best		4 50	5 00
GRAIN, Rye	bush	80	83
Corn		65	68
Barley		63	65
Oats		43	45
HOGS' LARD, 1st sort	lb.	9	
HOPS, No. 1,		10	12
LIME,	cask	1 25	1 50
OIL, Linseed, American	gal.	65	70
PLASTER PARIS	ton.	3 00	3 25
PORK, Navy Mess	bbl.	12 00	12 50
Bone Middlings		14 00	14 50
Cargo, No. 1,		12 00	12 50
Cargo, No. 2,		11 00	11 50
SEEDS, Herd's Grass	bush	2 25	2 50
Clover	lb.	8	9
WOOL, Merino, full blood, washed		55	65
do. do. unwashed		45	47
do. 3-4 washed		45	47
do. 1-2 do.		40	45
Native	do.	35	40
Pulled, Lamb's, 1st sort		55	60
do. Spinning, 1st sort		47	50

PROVISION MARKET.

BEEF, best pieces	lb.	8	12
PORK, fresh		6	9
VEAL,		6	10
MUTTON,		5	7
POULTRY,		7	12
BUTTER, keg & tub		15	16
lump, best		16	18
EGGS,	doz.	12	14
MEAL, Rye,	bush	85	90
Indian,		80	85
POTATOES,		37	
CIDER, liquor,	bbl.	1 50	
HAY, best,	ton.	20 00	24 00

CONTENTED FARMER.

Give me the lot of one who moves
 Contented in a humble sphere,
 Who gains respect from all he loves,
 And dreads no lurking envy near.
 For such a man each rolling year,
 Brings round a double share of joy;
 His mind, of stormy passions clear,
 Befits his innocent employ.
 Though fortune smiles upon a throne,
 Contentment smiles on him alone.
 He cultivates his native soil,
 In plain but comely dress attir'd;
 The social pipe beguiles that toil
 Which has with strength his limbs inspir'd.
 Great Cincinnatus oft retir'd,
 To live on his paternal field,
 (When war's last trumpet sound expir'd)
 And felt more joy than victories yield.
 A little spot was all his gain—
 A People's love his large domain.

[Providence Paper.]

AURORA BOREALIS, OR NORTHERN LIGHT.

In the north-eastern parts of Siberia, the northern lights are observed to begin with single bright pillars, rising in the north, and almost at the same time in the north-east, which gradually increasing comprehend a large space of the heavens, rush about from place to place with incredible velocity, and finally almost cover the whole sky up to the zenith, and produce an appearance as if a vast tent was expanded in the heavens, glittering with gold, rubies and sapphire. A more beautiful spectacle cannot be imagined; but whoever should see such a northern light for the first time, could not behold it without terror. For however fine the illumination may be, it is attended with such a hissing, crackling, and rushing noise through the air, as if the largest fire works were playing off. The hunters who pursue the white foxes on the icy sea are often overtaken in their course by these northern lights. Their dogs are then so much frightened that they will not move, but lie obstinately on the ground till the noise has passed.

Similar lights, called *aurora australes*, have been observed in the southern hemisphere.—They differ, however, from those in the north, in being always of a whitish color, whereas those of our hemisphere assume various hues, but are generally of a fiery or purple color.

In the Shetland Isles, these lights are called the *merry dancers*, and serve to enliven the long winter nights. There they often cover the whole hemisphere, and make a very brilliant appearance. Their motions are then very rapid, and their forms very various. They break out in places where none were seen before, skimming briskly along the heavens, and are suddenly extinguished, leaving behind them a uniform dusky track. This is again illuminated in the same manner, and as suddenly left a dull blank. In certain nights, they assume the appearance of vast columns, on one side of the deepest yellow, on the other declining away till it becomes undistinguished from the sky. They have generally a strong tremulous motion from the end, which continues till the whole vanishes. In a word, we, who only see the extremities of these northern phenomena, have but a faint idea of their grandeur, or their motions.

According to the state of the atmosphere, they differ in color; they often put on that of blood, and make an awful appearance.

The periods of the appearance of these northern lights are very variable. In some years they occur frequently, and in others are more rare; and it has been observed that they are most common about the time of the equinoxes.

There have been many speculations and conjectures respecting the cause of the Aurora Borealis. It is now generally supposed that northern lights as well as ærial meteors are caused by that universal and all powerful agent electricity. A writer in the *Encyclopedia Britannica* gives the following solution of the manner in which he supposes the electric fluid operates to produce these and other phenomena. He assumes three axioms, viz: that all electric bodies, when considerably heated, become conductors of electricity; that, non-electrics, when subjected to violent degrees of cold, become electric; and that cold increases the electric powers of such substances as are already electric. From these premises he proceeds to deduce the causes of the aurora borealis as follows:—

“The air all round the globe at a certain height above its surface, is found to be exceedingly cold, and as far as experiments have yet determined, exceedingly electric also. The inferior parts of the atmosphere between the tropics; are violently heated during the day time by the reflection of the sun's rays from the earth. Such air will therefore be a kind of conductor, and much more readily part with its electricity to the clouds and vapors floating in it, than the colder air towards the north and south poles. Hence the prodigious appearances of electricity in these regions, shewing themselves in thunder and other tempests of the most terrible kind. In the temperate and frigid zones, the inferior parts of the atmosphere never being so strongly heated, do not part with their electricity so easily as in the torrid zone, and consequently do not require such recruits from the upper regions; but notwithstanding the difference of heat observed in different parts of the earth near the surface, it is very probable that at considerable heights, the degrees of cold are nearly equal all round it. Were there a like equality in the heat of the under part, there could never be any considerable loss of equilibrium in the electricity of the atmosphere; but as the hot air of the torrid zone is perpetually bringing down vast quantities of electric matter from the cold air that lies directly above it; and as the inferior parts of the atmosphere lying toward the north and south poles do not conduct in any great degree; it thence follows that the upper parts of the atmosphere, lying over the torrid zone will continually require a supply from the northern and southern regions. This easily shows the necessity of an electric current in the upper parts of the atmosphere from each pole towards the equator; and thus we are also furnished with a reason why the aurora borealis appears more frequently in winter than in summer; namely, because at that time the electric power of the inferior atmosphere is greater on account of the cold than in summer; and consequently the abundant electricity of the upper regions must go almost wholly off to the equatorial parts, it being impossible for it to get down to the earth.

Mr. Kirwan supposes that the rarefaction of the atmosphere in the polar regions proceed from the northern and southern lights, and the lights are produced by a combustion of inflammable air, which is kindled by electricity. If inflammable air is generated, particularly between the tropics, by many natural operations such as the putrefaction of animal and vegetal substances, volcanoes, &c. and being lighter than any other, occupies of course the highest regions of the atmosphere. Mr. Kirwan farther adds, that after the appearance of an aurora borealis, the barometer generally falls, and is commonly followed by high winds, proceeding from the south; all which facts strongly prove a rarefaction in the northern regions.

It is observed by Mr. Winn (*Phil. Trans.* v. 73.) that the appearance of an aurora borealis is a certain sign of a hard gale of wind from the south or south west. This occurred without fail, in twenty-three instances; and he thinks that the splendor of the northern light will enable the observer to form some judgment concerning the ensuing tempest. If the aurora is bright, the gale will come on within twenty-four hours, but will be of short duration; if the light is faint and dull, the gale will be less violent, and longer in coming on, but will last longer.

Dr. Franklin in some of his philosophical essays accounts for the aurora borealis on principles of electricity. He premises the following electric phenomena. 1. That all new fallen snow has much positive electricity standing on its surface. 2. That about twelve degrees latitude round the poles are covered with a crust of eternal ice, which is impervious to electric fluid. 3. That the dense part of the atmosphere rises but a few miles high, and that in the rarer parts of it the electric fluid will pass to almost any distance. Hence he supposes there must be a great accumulation of positive electric matter on the fresh fallen snow in the polar regions; which, not being able to pass through the crust of ice into the earth, must rise into the thin air of the upper parts of the atmosphere, which will the least resist its passage; and passing towards the equator descend again into the dense atmosphere, and there into the earth in silent and invisible streams. This theory of Dr. Franklin is essentially the same with that of the writer in the *Encyclopedia Britannica* above quoted.

(TO BE CONTINUED.)

Admiral Lord Howe, when a captain, was once hastily awakened in the middle of the night by the lieutenant of the watch, who informed him, with great agitation, that the ship was on fire near the magazine. “If that be the case” said he, rising leisurely to put on his clothes, “we shall soon hear another report on the matter.” The lieutenant flew back to the scene of danger, and almost instantly returned exclaimed, “You need not, sir, be afraid, the fire is extinguished.” “Afraid!” exclaimed Howe, “what do you mean by that sir? I never was afraid in my life;” and looking the lieutenant full in the face, he added, “Pray, how does a man feel, sir, when he is afraid? I need not ask how he looks.”

THE N. E. FARMER, published every Saturday, \$3 per ann. payable at the end of the year, or \$2,50, paid in advance.

NEW ENGLAND FARMER.

PUBLISHED BY THOMAS W. SHEPARD, ROGERS' BUILDINGS, CONGRESS STREET, (FOURTH DOOR FROM STATE STREET.)

Vol. I.

BOSTON, SATURDAY, APRIL 12, 1823.

No. 37.

PREMIUMS

Offered by the Essex Agricultural Society, in 1823.

The Committee of the Trustees appointed to propose objects for premiums, advertising to the original design of the institution—the improvement of the general husbandry of the county—have thought it advisable, at this time, to depart materially from what seems to have been a leading principle in all the Agricultural Societies of the country—that of offering premiums chiefly for certain specific articles of husbandry, instead of the combined improvements of entire farms.

Since the formation of the Essex Society, specific premiums have produced valuable effects; by demonstrating, that with high manuring, and good culture, some former usual crops may be doubled, trebled, and even quadrupled. But the important question is—not what small lots in or near market towns, and abundantly supplied with manures, may be made to yield; but how the productive powers of farms can be essentially increased: and this can be effected only by a better management in all articles of husbandry. With this in view, the Committee propose to extend the encouragement heretofore given for general improvements; and offer the following premiums.

I.—MANAGEMENT OF A FARM.

For the management of a farm, in its tillage, mowing, orcharding and pasturage: the quantity of land appropriated to each—their cultivation—the means and the manner of making, increasing, preserving and applying manures—their quantities—the respective crops and products—the quantity and management of the live stock—and the quantity of labor employed—to be detailed.

For the best	- - - - -	\$30
For the second best	- - - - -	25
For the third best	- - - - -	20
For the fourth best	- - - - -	15

II.—DAIRY STOCK-SOILING.

For experiments in feeding milch cows on green crops, from the middle of June to the middle of October, by supplying them to the full with those crops, in their stables, without turning them to pasture. Feeding cattle in this manner is called *soiling*.

For the best,	- - - - -	\$20
For the second best,	- - - - -	15
For the third best,	- - - - -	10

The whole process to be detailed.

REMARKS.

The green crops may be rye (sown the preceding year) oats, barley, millet, Indian corn, clover and various grasses. Any sorts of grain sown to produce fodder for soiling, after being harrowed in, should be rolled, to make the surface and the ground smooth for mowing. The clover and upland meadow grounds, destined for soiling, will be better for rolling, with a heavy roller, to make a smooth bottom, without which the mowing cannot be close; and if not close shaven, the thickest part of the grass will remain uncut.

If the soil be rich and the surface smooth, the grass may be cut when only three or four inches high, and will then yield a good swarth.

Such ground well set with the grasses which produce what is known among us as English hay, and inclined to moisture, may in this manner be mown three or four times in a season. The cutting of the rye, oats, barley and millet should commence as soon as they will yield a good swarth, and be finished before they have passed the flowering state. If mown before they flower, they will shoot again; and if the growth be rich, yield second crops.

Indian corn will be well grown for soiling by the 10th or 15th of July; and will continue green, and in full sap until the last of August. And in order to continue a supply of this rich green food—to which probably no other vegetable of our country is equal, especially for milch cows—pieces of land may be planted in succession, so that some may be in full sap to the last of September, when, in Essex, frosts usually strike the blades, and greatly lessen their value.

If there be a piece of rich mowing land in the farm, its second or third crop will furnish green fodder to the middle or last of October. Perhaps late sown oats, hardier plants than Indian corn, may supply the place of grass. Pumpkins, also, during this month and the next, will furnish a most valuable food.

All the sorts of fodder above mentioned, like the young grasses of the spring, naturally dispose cattle to a degree of looseness, though probably without injuring them. But if any of them operate to an excess, a little good hay will furnish a useful corrective.

After November, potatoes, mangel wurtzel and carrots, added plentifully to their dry fodder, even if this be only barley, or oat straw, or wet or low ground meadow hay, will doubtless keep cows in milch till within a few weeks of their calving.* Cows, during the time of their going dry, and other stock at all times, fully supplied with ruta бага, or common turnips, with the same poor dry fodder, may be kept in high condition. In England, cattle intended for beef are often fattened on wheat straw and turnips, giving of the latter as many as they will eat. They commence feeding in this manner in autumn, and by the spring the cattle are fat for the market. The cattle thus fattened, and in so short a time, are of moderate sizes.

Rye, oats, barley and millet, when destined for soiling, should be sown twice as thick as when intended to ripen their seeds. In like manner, Indian corn may be planted in continued rows only so far apart as to admit a small plough in its culture, and with the plants only four or five inches apart in the rows. The surface of the ground should be smooth in the rows, so as to admit of mowing the corn.

The farmer who shall pasture some of his cows, and soil the others, will add to the value

* An observing farmer, long ago expressed to me the opinion, that cows should go dry five or six weeks before calving, to give time for the milk vessels to be distended, and the bag enlarged; in the language of farmers, for the springing of the bag. It was his opinion that the greater increase of milk after calving, would amply compensate the loss of going dry so long.

of the experiment, by keeping their milch separate, and noting their relative quantities from cows of equal goodness, and the quantity and quality of the butter made from each set.

III.—THE DAIRY.

For the greatest quantity of good butter, in proportion to the number of cows producing it, (not fewer than four) made on any farm, from the 20th of May to the 20th of November, twenty-six weeks, and the quantity of butter averaging not less than seven pounds per week for each cow,

For the second greatest,	- - - - -	\$20
For the third greatest,	- - - - -	15
	- - - - -	10

The kinds of food and the management of it to be detailed.

REMARKS.

The object of Agricultural institutions, as already observed, is *improvement*; and in Essex, none seems to be more wanted than in *milch cows*. If the society were to continue their premiums, during any length of time, merely for the greatest quantity of butter, they would not enforce any improvement in the quality of those animals. Seven pounds of butter a week, for each cow, is less than half what the Oakes cow of Danvers produced, in the same time. The seven pounds a week, therefore, are very attainable by every farmer who will *improve his breed of cows*, and feed them to the full with juicy and highly nourishing food. The Committee trust they do not entertain a groundless hope, that the premiums here offered will have claimants; and that in some future years, the Trustees will be justified in confining these premiums to cows yielding ten, twelve, and fourteen pounds of butter a week, for twenty six weeks in the year.

IV.—TURNING IN GREEN CROPS AS A MANURE.

For the best experiment of turning in green crops as a manure, on not less than one acre,	- - - - -	\$15
For the second best,	- - - - -	10
For the third best,	- - - - -	5

REMARKS.

The claimants must give a particular account of their respective processes, and the results. The object aimed at is, to ascertain whether land can be manifestly improved by turning under green crops, and to what degree enriched. Each experimenter will follow his own judgment in his process; but the following intimations may merit his attention.

The turning in of green crops is a very ancient, though not a very general practice. Its utility has lately been called in question. Hence the desire to bring it to the test of fair experiment.

Take an acre of land, so far exhausted at the last crop as to render it inexpedient to introduce another without a good manuring. Plough it in the spring, and sow it with oats, barley, buck-wheat, or millet—and not be sparing of the seed. When the crop shall be full grown, but still in blossom, plough it in, and sow it again. When this second crop shall be full grown, plough it in. The next year repeat this process—again ploughing in two crops; the last by the beginning of October. It may

then be sown with winter rye, to produce a crop of grain at the next harvest—sowing five or six pecks, because sown so late.—Or it may lie till the ensuing May, and then be planted with Indian corn. The product, compared with the last of the same acre, prior to the commencement of the experiment, especially if a crop of the same kind, will show the value of the green crop ploughed in.

ANOTHER MODE.

The acre being divided lengthways into two equal parts, plough the whole uniformly in the spring. Sow on one part two bushels of oats or barley, or a bushel of buck-wheat, or three or four half pecks of millet; and harrow the whole acre alike, and so as duly to cover the seed which has been sown. When the crop has attained its full growth, but is still in blossom, plough it in; ploughing the vacant half acre at the same time, and to the same depth. Sow the first half acre again immediately, and harrow in the seed, harrowing the other half in the same manner. The next year repeat the same process. Then the whole acre may be sown with winter rye (3 pecks on each half;) or the land may lie (as in the process first proposed) to be planted with Indian corn the ensuing spring. In the third year, the crop put in must stand to ripen. The produce of each half acre (both being sown or planted, and cultivated in the same manner) must be kept by itself, and accurately measured. The difference between them will show the value of the green crops ploughed in.

Every experimenter will perceive that no manure whatever is to be used—the crops sown, and the weeds ploughed under, excepted.

Until ploughs constructed for the purpose of completely turning in green crops shall be introduced, it will be necessary to roll flat the green crop before ploughing, or it cannot be duly covered. Perhaps a small roller, or what is called a *foot*, only of a large size, may be attached to the fore end of the plough beam, to press down the crop to the ground, and thus cause it to be effectually covered. Such a roller, or foot, will serve as a gauge for the depth of the furrow in which the crop shall be buried.

V.—CIDER.

For the best cider, the pure juice of the apple, which shall be made in the present year, not less than eight barrels, - - - - - \$10
For the second best - - - - - 5

The greater part of the cider may be sold, if the owner please, only reserving one cask, of which a sample is to be produced at the Society's public exhibition in 1824; with good evidence that the casks sold were equal to that reserved. If sold, the claimant will state when, to whom, and at what prices; and describe his whole process in collecting, sorting and keeping the apples, in making the cider, conducting the fermentation and fining, if any artificial fining be used, and in preserving the cider in the cask.

For some information of an eligible process in making and managing cider, the Committee refer to the intimations contained in the Explanatory Observations subjoined to the list of premiums for 1821.

VI.—FOREST TREES.

The same premiums that were offered in 1821 and 1822; to which intended claimants are referred. And they are desired to give

notice of their proposed claims to the Secretary, John W. Proctor, Esq. in Danvers, before the first of July next.

VII.—POTATOES.

Numerous experiments have been made, to increase the products of this root, and premiums have been awarded for the greatest; but no measures for improving their *qualities* have fallen under the observation of the Committee. It is well known that the seeds in the *apples* or *green balls*, which grow on the tops of potatoe stalks, will produce potatoes, which, planted for one year, and their produce a second year, will yield well sized potatoes. It is from these small seeds that all the varieties of potatoes have been produced. It was in this way that a distinguished farmer in Ireland—a country so famous for the culture of potatoes—obtained excellent kinds. From the numerous seeds in every ball, a variety of potatoes may be expected; some early, some late in ripening—some yielding small, and others abundant products—some watery, and others mealy and well flavored.

Expectations have often been formed of raising potatoes of the best qualities, by planting those brought from the British Isles; but disappointment is the common result: the products of the first year have scarcely borne a resemblance to the fine originals. It is very possible, and not improbable, that some sorts superior to any in cultivation among us, may be obtained from the small seeds found in the green balls. To encourage the necessary experiments, the following premiums are offered:

For the best and most valuable potatoes, taking them for all in all, raised from the seed of the apples or green balls, samples of which shall be produced at the Society's public exhibition in 1825, - - - - - \$10
For the second best, - - - - - 7
For the third best, - - - - - 5
The claimants are to detail their whole processes, and state the results.

REMARKS.

Some sorts may be of superior excellence for their mealiness and flavor, but moderate in their product; some not so well flavored, may be very abundant in quantity, and highly valuable for feeding live stock; some very early ripe; some growing compactly, and so expeditiously harvested. The sorts which, combining most of these good qualities, shall be judged the most valuable, will be preferably entitled to the premiums, without excluding claims for potatoes of highly superior goodness, although less productive. To facilitate the execution of these novel experiments, the Committee offer the following

DIRECTIONS.

The experimenter, having determined with what sorts of potatoes he will make his trials, will gather the balls when the stalks, by their drying, indicate a ripeness in the seeds; and if they are not quite soft, so that the seeds will easily separate from the pulp, they may be laid by (out of the way of frost) until the pulp becomes soft. Then mash them with the hand, and with the aid of water separate and wash the seeds clean. These, being dried, may be preserved like garden seeds, until the ensuing spring. Then sow them in rows, in a bed of rich garden earth, just as small garden seeds are sown. The rows may be ten inches apart; and the plants, when grown enough to be thinned, may stand four or five inches asunder. Keep them clear of weeds, and stir the earth

between the rows. The supernumerary plants, arising from the thinnings, may be transplanted, if needed, to another bed.

In Autumn, or when the stalks become so far dried that the roots cease to grow, dig these up carefully, so that the potatoes growing on the same plant may be saved by themselves; for it may happen that each distinct plant may produce a sort different from the rest. The bulbs, or roots, of the first year, will be very small. In the next spring choosing a piece of rich ground, plant each sort in a hill by itself. The product of this year will furnish bulbs big enough to be boiled. And this will be the time for selecting the best. Many sorts may not deserve any further attention; but some may be of excellent qualities, as to time of ripening, texture, flavor and productiveness. Their several qualities should be carefully noted; and again be separately preserved and planted another year; when they will probably have attained all the perfection of which their natures admit.

Lancashire, a western county of England, as well as Ireland, is distinguished for producing good potatoes. Ireland is remarkable for the moisture of its climate; and the western is more moist than the eastern coast of England. Both are many degrees farther north than Massachusetts; and are exempt from the burning heats and droughts of our summers. These circumstances suggest the propriety of our planting potatoes on moist and cool grounds; thus assimilated, in some measure, to the soils of Ireland and Lancashire.

VIII.—PLOUGHS AND PLOUGHING.

Some ploughs are of easier draught, and make better work, than others; and some oxen draw or plough extremely well without a driver. The design of ploughing matches is to attain all possible perfection in both. The premiums, therefore, under this head, will be confined to efficient ploughs of easiest draught, drawn each by one yoke of oxen without a driver, ploughing one quarter of an acre, and turning the best furrow, at least five inches deep, and in the shortest time compatible with a continuance of the labor to complete the ploughing of an acre, if that were required.

For the best plough, team and work, - - - \$15
For the second best, - - - - - 12
For the third best, - - - - - 8

IX.—SUMAC.

The premium for this article is continued of course, as the claim is to be presented the ensuing autumn.

GENERAL REMARK.

The Committee repeat—and desire it may be remembered—that premiums claimed are not to be awarded, unless the subjects of the claims are decidedly meritorious. That is, the respective experiments must be so conducted as to exhibit results worthy of encouragement and imitation—or decisive of a question of which the solution is sought.

Where a premium has heretofore been awarded to any person, he is not to receive another for the same object. And where any plough has obtained a premium, another is not to be awarded for the same plough, nor for one of the same mould. Some important improvement can alone justify an appropriation of the Society's funds, in cases of this nature.

To allow time for enterprising farmers to

make preparations for becoming competitors for the premiums now offered, the Committee are of opinion that there should be no public exhibition in the present year. The disposable funds of the Society will thereby be increased, to reward successful candidates for premiums the year following. But whether there shall, or shall not, be a public exhibition in the present year, the Society, at their approaching annual meeting, will determine. As, however, some claims were to be made in the present year, these may be sent to the Secretary of the Society, to be laid before the Trustees, for their decision thereon.

The Committee propose no premiums for the reatest quantity of any kind of crops. The experiments already made have demonstrated that is practicable; and if those known examples of success are insufficient to stimulate general exertions, the usual premiums must prove ineffectual.

Essex not being a county for grazing and fattening cattle much beyond the farmer's own wants, this article also is discontinued in the list of premiums.

As to the usual live-stock—working oxen, milch cows, young cattle, sheep and swine—they are to be considered as comprehended in the Management of a Farm, additionally to the provisions under the heads No. III, & No. VIII, relating to the Dairy and Ploughing Matches; and to the following article.

X.—FOR IMPROVING OUR NATIVE BREED OF NEAT CATTLE.

The first most celebrated breeder of live stock, England, was the late Robert Bakewell; to whom, Mr. Arthur Young says, that country is indebted for *just principles of breeding*. And another eminent breeder says, that “before Mr. Bakewell’s days, we had no criterion but size; nothing would please but elephants and giants.” And “he declares that Bakewell enabled those who followed his ideas to produce two pounds of mutton, where only one was produced before.” The following were the points to which Bakewell specially attended:—“fine limbs, small bones, and a true disposition to take ready fat: which indeed is inseparable from small bones, or rather fine bones and fine limbs, or true symmetry of the parts.”

But Bakewell’s prime object, in improving cattle and sheep, was to render his animals most profitable in *beef and mutton*. And he succeeded in obtaining forms indicating *strength of constitution—a disposition to fatten, and at an early age—weightiness in the most valuable parts—lightness of offals*. If there was deficiency in any point, he would cross his animal with one that was amply supplied in that part; and if any point of his animal was too heavy, by an opposite cross he would reduce the superfluity. In such management, diligently pursued, he at length gave to his stock the shape and qualities desired.

So far as we breed domestic animals in this county—and the observation will apply to our whole state, and generally to all New England, we must extend our views beyond *beef and mutton*; and with the former combine *milk, butter and cheese*, and a fitness for *labor*; and together with *mutton* aim at the greatest quantity of the most useful *wool*.

If Bakewell could alter the shape of his cattle, and lay flesh and fat on the most valuable

joints—as was the fact—can it be doubted that, by similar attention, the quantity and quality of the milk of our cows may be increased and enriched? But to obtain this improvement, calves should be raised from such cows only as excel in these two particulars.

It seems to be the best opinion, that of the different breeds of live stock, those of the largest size are not the most profitable. The breed of cattle, however, should be such as to produce oxen a single pair of which, at their full growth, should have strength sufficient, on proper tillage land, with well formed ploughs, to open a furrow to the depth of five, or even of six inches. As to the form of the different kinds of live stock, an eminent naturalist and farmer in England has thus expressed his opinion:—“The more deep and capacious the chest, and the shorter and lower any animal is, relative to its weight, the better adapted it will be to live and fatten on little food, the more labor it will go through; and I have always found the most short-legged oxen to be the best laborers.”

The foregoing rules of breeding, and description of good live stock, being the result of the experience of eminent English farmers and breeders, merit the particular attention of all who shall attempt to improve upon our present races of domestic animals; and are here introduced to furnish them with useful information. And in the hope and expectation that such improvements will be undertaken, the following premiums are offered:

To the person who shall produce at the public exhibition of the Society, in the year 1828, any number of milch cows, not less than four, of our native breeds, showing manifest improvements therein, by an important increase in the quantity, and maintaining, at least, if not improving, the good quality of milk—the latter to be tested by the quantities of butter made in the six months next preceding the exhibition—

For the best,	- - - - -	\$30
For the next best,	- - - - -	25
For the third best,	- - - - -	20

For the best pair of working oxen, or well trained steers, improved on the principles above stated, and exhibited at the same time—

For the best pair,	- - - - -	\$20
For the second best,	- - - - -	15
For the third best,	- - - - -	10

It will readily be admitted that our live stock demand great improvements; and no one will question whether such improvements are practicable. They ought then to be attempted. It will avail little to bestow premiums merely for the best that shall be produced; for such premiums might be given for a century, without effecting any real improvements; and thus, as to live stock, defeat the object for which the Society was formed. The known excellency of some oxen and cows, of our native breed, give assurance to judicious and enterprising farmers, that their numbers may be multiplied by observing the well-tried rules of breeding. The Oakes cow has probably not been surpassed in any country. By some she was judged to be under the size of our common cows. Her short legs probably gave rise to that opinion. There are, however, many larger cows in the county.

The best bulls and cows do not always produce a progeny equal to the parents; but ex-

perience has shown, that from such only the highest improvements may be expected. The same observation applies to all other kinds of live stock.

Farmers who shall effect great improvements in live stock, while they render a lasting benefit to their country, will lay a foundation for advancing their own interest, in the demand, and consequently increased prices, of their improved breeds.

Reflecting farmers, who shall become candidates for premiums, will be aware, that if their exertions should not obtain the honor of a prize, they will not pass unrewarded; as all the improvements they make will either give them immediate profits, or add to the value of their farms. The direct object of premiums is not to excite merely trials of skill, but to add to the solid interests of farming; and he, who shall show how we may add most to that solid interest, will obtain the highest prize.

In behalf and by order of the Committee,
T. PICKERING.

Salem, January 22, 1823.

Pope, who, whatever his good qualities might be, certainly was not much troubled with good nature, was one evening at Burton’s Coffee-house, when he and a set of literati were poring over a manuscript of the Greek comic poet Aristophanes, in which they found a passage they could not comprehend. As they talked pretty loudly, a young man who stood by the fire, heard their conference, and begged that he might be permitted to look at the passage. “O!” said Pope, sarcastically, “by all means, pray let the young gentleman look at it.” On which he took up the book, and considering a while, said, that there only wanted a note of interrogation to render the whole intelligible, which was really the case. “And pray master,” said Pope, piqued perhaps at being outdone, “what is a note of interrogation?” “A note of interrogation,” replied the youth, with a look of the utmost contempt, “is a little crooked thing that asks questions!” ’Tis said, however, that Pope was so delighted with this witicism, that he forgave the sarcasm on his person.

A sportsman, by touching his horse near the withers with his whip, taught him to kneel immediately: when shooting, and a dog came to a point, he made the horse kneel, and persuaded those present that the horse was an *excellent pointer*. A gentleman having purchased the gelding, was fording a driver with him, when, having touched his withers, he was true to the touch, down he dropped in the stream, and soused his new master in the water. The latter in a great passion, asked his former owner what he meant by selling him a horse that played him such a trick in the water? “Oh!” said the other, “you bought him as a pointer, and at the time he went on his knees he was *pointing at a salmon*.”

The Reserve.—A gentleman showing his friend his curiosities, &c. in his gallery, on the other’s praising them all very much, he gave him a choice of any one of them as a present. The stranger fixed his election on a tablet, in which the ten commandments were written in letters of gold. “You must excuse me there, replied the gentleman, those I am bound to keep.”

ADDRESS

OF THE HON. S. HALE, DELIVERED BEFORE THE CHESHIRE (N. H.) AGRICULTURAL SOCIETY, OCTOBER, 1822.

Concluded from our last, p. 285.

I have said that our good soils have been exhausted of those properties which rendered them fertile. Reason, therefore, teaches, that the art and industry of man should, in the first place, be directed towards replenishing them with similar properties. This is done by means of manure, and to acquire a knowledge of the best modes of making, preserving, and using it, should be the principal study of the farmer. The degree of attention applied to this branch of husbandry distinguishes the judicious from the ignorant and unskilful agriculturist; and in this, care and skill are more requisite, and are more certainly and bountifully rewarded than in any other. No farmer should be satisfied with the quantity of manure necessarily made by his stock of cattle. It is in his power to obtain double that quantity; and he may rest assured that, for the trouble of obtaining it, he will be amply remunerated. If he have ordinary advantages, he may obtain that which will be fully worth one dollar per load, at an expense, which, every thing calculated, shall not exceed half that sum.

If the farmers of this country would but peruse the Agricultural publications of Great Britain, they would be astonished at the amount of time and expense which is there devoted to this branch of husbandry. They would see long and minute directions for preparing barn yards in the manner best fitted to make and preserve manure. They would see instructions given for making compost heaps in the fields and by the side of swamps, many of which cost one, and some even two thousand dollars each. They would learn in what manner the hog pen and poultry yard are made subservient to the same purpose. They would learn to their astonishment that after the usual supply is obtained from all these sources, it is not unusual for the farmer who cultivates three hundred acres, to expend three or four thousand dollars in procuring and purchasing marle, ashes, lime, &c. to be applied upon his farm. In that country, no land is cultivated without manure bountifully applied—and with manure almost any land is made fertile and profitable.

I do not refer to the customs of the English farmer for the purpose of recommending them to your strict imitation. In many points of view, his situation is different from yours. The United States contain too little surplus capital, and the demand for the productions of the soil is not sufficient, to authorise such extraordinary expenditures. I refer to them to shew you in how high estimation is held the article of manure among farmers distinguished for their sagacity. When your attention is once fixed, and your curiosity stimulated, you will, I have no doubt, select and adopt such of the modes of making it as are best adapted to your circumstances. Servile imitation is ever to be avoided. It is perhaps more injurious in Agricultural than in any other pursuit; for no two farms nor two seasons can be precisely alike. Every farmer ought to rely mainly upon his own judgment, but to render his judgment worthy to be relied upon, it should be improved by reading, inquiry, and observation.

The cheapest and most simple mode of increasing the quantity of manure ordinarily made in the barn yard is, perhaps, to carry into it mud from the swamps, ponds, and ditches, and turf from the side of old fences, and from the road side. In this manner excellent manure may be obtained at little expense. The mud from swamps and ponds consists principally of decomposed vegetables. It is entirely inert and insufficient until it has been made to ferment by exposing it to a certain degree of heat, or by mixing it with the putrescent substances which abound in the yard. It is then nearly as valuable as that which is thrown from the stable, and especially if so placed as to absorb the liquid manure which would otherwise be lost.

The best mode of preserving the strength of manure is an object worthy of more attention than it has usually received in this country. It cannot be doubted that much of it descends with the rain into the earth, and that much evaporates into the atmosphere. To prevent both, the utmost care should be taken. To guard against the former, the farmers of Flanders, who surpass even the English in attention to this branch of husbandry, pave their yards, which are made hollow in the centre, with a composition of clay and gravel. To guard against the loss of strength by evaporation, they sometimes, placing their manure in heaps, cover it carefully with a coat of loam, which becomes itself manure; and sometimes erect sheds over it to protect it from the rays of the sun. These modes are suggested for your consideration. But I cannot forbear to remark, that the practice of permitting small heaps to remain for a long time in the field, is an obvious proof of careless and unskilful husbandry.

The state in which barn yard manure should be applied to the land is a question which has lately been considerably agitated. It is the opinion of some that it should be kept over one season, and not be used until it has arrived at an advanced stage of decomposition. It is the opinion of others, that it ought to be applied in its green state; or in other words, that the whole of it, every spring, should be removed from the yard and used on the land. It appears to me that the latter opinion has the strongest reasons in its favor. The quantity would then be much greater. The fumes that escape in the process of putrefaction and decomposition, which are highly efficacious in promoting vegetation, would not then be lost. It would suffer no injury from drenching rains nor from a burning sun. The crops, soon or late, would feel all its influence. The effects the first year might not be so perceptible, but they would continue longer. This opinion is supported by the authority of late eminent writers on the subject of Agriculture. Whether it has the sanction of long and extensive experience I am not able to say. It certainly deserves the attention of those who are not opposed to all innovations and improvements in Agriculture.

The swamps which abound in many parts of our country, are generally considered of but little value. Many of them, however, are capable of being made the most productive land. For many centuries, the rains have carried into them the soil from the uplands. The winds have borne thither the leaves of trees. Numerous plants, luxuriantly growing, and yearly decaying, have added to the depth and richness

of the soil. To these swamps I wish to direct the attention of farmers. Whenever it is found possible to drain them, the natural outlet should be deepened, or a ditch should be dug through the bank where the descent is greater. It is essential that the bottom of this ditch should be at least three feet lower than the surface of the swamp. Its width, especially if the swamp contain many acres, should not be less at top than 4 or 5 feet. One season or more should then elapse before any thing further is done. In the mean time the swamp will have become sensibly drier and firmer. Let the ditch then be extended into the centre or lowest part; and should it appear necessary, let small ditches be dug, leading to other low parts from the main ditch. If the land be covered with timber or bushes, the usual mode of chopping and burning may then be adopted. Should the swamp continue too wet, let it be encircled by a ditch near its outer border and deep enough to cut off the springs which run into it; but this should not be done unless obviously necessary, as it will prevent the swamp from receiving annual accessions to its fertility from the hills around it. Those who have never witnessed the effect of draining will be astonished at the difference which in two or three years will be produced. Cattle will find a firm footing where before a man could not walk. All the operations of husbandry can be conveniently and safely carried on. With manure, crops of corn, and without it crops of grass can be obtained larger than uplands generally yield. Every year will render the land more valuable. Tillage, by exposing the soil to the warmth of the sun, and manure by producing some degree of fermentation, will hasten its improvement.

It is admitted that the process of reclaiming such swamps is generally tedious and sometimes expensive; but it is believed that in some cases a full remuneration is certain. And besides the individual advantage produced, the appearance of the country will be highly improved, for nothing presents a more delightful prospect than smooth and gently descending hollows covered with luxuriant vegetation. And the public interest will be promoted by what will amount in effect to an extensive and valuable addition to our territory.

Low and wet lands, to which the epithet swampy could not well be applied, will also receive great benefit from draining. Too much water is quite as injurious as too little, to all our valuable crops. And often a ditch may be made to answer the double purpose of draining and enclosing land. Whether draining is resorted to in all cases where it would be useful, is a question well worthy the consideration of the farmers of this country.

The suggestions to which you have listened my fellow citizens, have been offered with the greatest diffidence. I am well aware that many of you are much better acquainted than I can be, with the subjects to which your attention has been invited; and that little has been communicated which was not before known to you all. If, however, I have impressed one important truth more strongly upon your minds, shall not have spoken in vain. Truly gratified shall I feel, if what I have said shall render your arduous labors more profitable to yourselves, or more useful to your country.

THE FARMER.

BOSTON:—SATURDAY, APRIL 12, 1823.

Farmer's and Gardener's Remembrancer.

APRIL.

Insects.—The period is approaching or has already arrived, in which it behoves every farmer, gardener, and house keeper to declare a war of extermination against worms, bugs, and other mischievous and devouring insects. If the Lords of the lower world can devise no means for repelling the attacks of those little destroyers, they must even be contented to diminish their substance with their puny partners, and not only maintain a host of creeping and crawling tenants, who consume the products of husbandry, without paying rent, or rendering any homage or service, but admit some of the most voracious intruders to their bed and board. To describe all, or the greater part of the pestiferous and mischievous beings, which belong to this department of animated nature, and the remedies against the evils which they inflict, would require folio volumes, and as much transcend our limits as our knowledge and means of information. We shall therefore content ourselves to such as are most common, and most injurious in their operations, and would premise, that the remedies which we prescribe against the ravages of one kind of insect, will frequently be found effectual against every other sort.

Among the substances, which are either offensive or fatal to all kinds of insects, may be numbered elder, especially of the dwarf kind, tobacco, quicklime, lime water, soot, unleached wood ashes, strong lie, tar or turpentine, or water impregnated with those substances, common to be finely pulverized, brine, old urine, &c. &c. Boiling water is, likewise, an effectual and sometimes an expedient bug and worm destroyer. We have known beds or plats in gardens, well scalded previous to sowing them with the seeds intended for them with perfect success against worms, grubs, and every species of insect, which had its habitation in the plat, to which the boiling water was applied. This operation, thoroughly performed, cannot fail to destroy not only every reptile within reach of its influence, but those eggs or nits which are lodged in the soil, and are teeming with future mischief. It would be well after a bed has been well scalded to enclose it with slips of boards, bark, or some other suitable material to prevent the access of insects from its neighborhood. Hills intended for cabbages, cucumbers, melons, squashes, &c. &c. after having been scalded, and sometimes merely carefully dug over and inspected, have been surrounded with strips of white birch bark, and remained impregnable to every kind of creeping thing. If this defence is covered over the top with a strip of gauze or muslin the plant is of course secured against the winged tribes. It would no doubt be a good plan, when boiling water is applied as before mentioned to boil a few elder roots and perhaps tobacco stalks with the water, that the worms may have the benefit of the decoction.

Care should be taken, in the application of some of the foregoing remedies not to destroy the plants instead of, or together with the insects which prey upon them. The old editions of Deane's New England Farmer recommended the application of strong brine to cabbages, in

order to destroy lice and other insects, but if the brine be too strong it will kill the vegetable as well as the insect. Quick lime and even strong wood ashes may also injure young and tender vegetables. The safest way is to apply such caustic and corroding substances to the soil, some time before the seed is put into the ground. Or they may be used while vegetables are growing, provided they are placed near without touching them. The juice of elder or a pretty strong decoction of elder (elder tea, as some would call it,) we believe is an effectual remedy against all or nearly all insects, and will not injure any plant. Fall-ploughing and elder juice we should depend upon principally in gardening as antidotes to insects. As insects are often introduced into gardens by means of dung used as manure, it might, perhaps, be well, in some instances to leach such manure, or dilute it in water, and apply the liquid part alone to a garden. This would be somewhat troublesome, but Sir John Sinclair says it is practised by farmers in Switzerland even in field cultivation, and the straw that is washed, is afterwards used as manure for potatoes. If boiling water be used in leaching the manure, the insects, together with their spawn, would hardly survive the operation. So much for insects in general; we shall mention some particular kinds, in our future essays under this head, with an intention of attending to them, before the season in which their ravages are to be dreaded, and can be best guarded against.

ON THE CHOICE OF SEEDS.—"The way to try seed is this. Put a small quantity of it in lukewarm water, and let the water be four or five inches deep. A mug or basin, will do, but a large tumbler glass is best; for then you can see the bottom as well as top. Some seeds, such as those of cabbage, radish and turnip, will, if good, go to the bottom at once. Cucumber, Melon, Lettuce, Endive, and many others require a few minutes. Parsnip and carrot, and all the winged seeds require to be washed by your fingers in a little water, and well wetted before you put them into the glass; and the carrot should be rubbed so as to get off part of the hairs, which would otherwise act as the feathers do as to a duck. The seed of Beet and Mangel Wurtzel are in a case or shell. The rough things that we sow are not the seeds, but the cases in which the seeds are contained, each case containing from one to five seeds. Therefore the trial by water is not, as to these two seeds, conclusive, though if the seed be very good, it will sink in water, after being in the glass an hour. And, as it is a matter of such great importance, that every seed should grow in a case where the plants stand so far apart; as gaps in roots of Beet and Mangel Wurtzel are so very injurious, the best way is to reject all seed that will not sink, case and all, after being put into warm water and remaining there an hour.

"But seeds of all sorts, are, sometimes, if not always, part sound and part unsound; and as the former is not to be rejected on account of the latter, the proportion of each should be ascertained, if a separation be not made. Count then a hundred seeds, taken promiscuously, and put them into water as before directed. If fifty sink and fifty swim half your seed is bad and half good; and so in proportion as to other numbers of sinkers and swimmers. There may

be plants, the sound seeds of which will not sink; but I know of none. If to be found in any instance, they would, I think, be found in those of the Tulip tree, the Ash, the Birch and Parsnip, all of which are furnished with so large a portion of wing. Yet all these, if sound, will sink, if put into warm water, with the wet worked a little into the wings first. I incline to the opinion that we should try seeds as our ancestors tried witches; not by fire but by water; and that, following up their practice we should reprobate and destroy all that do not readily sink."*

ASPARAGUS BEDS.—These should be completely loosened with a fork to a moderate depth as soon as the frost is out of the ground; but care must be taken not to go too deep, so as to wound the crowns of the roots. They should then be raked even before the buds begin to advance. "This plant is found growing naturally on the borders of salt marshes, and even upon such marshes. This is considered to be its natural situation; and this fact has led to the employment of salt as a manure to it with very good effect. To a bed fifty feet by six, a bushel of salt may be safely applied before the plants start in the spring."†

BEETS may be sown as soon as the ground is fit to receive the seeds. The rows a foot apart and the plants should be left eight inches apart in the rows. Mr. Cobbett advises to soak the seed four days and nights in rain water before it is sowed. It should be put in about two inches deep, well covered and the earth pressed pretty hard upon it. "The ground should be rich, but not fresh dunged. Ashes of wood, or compost mould is best; and the digging ought to be very deep, and all the clods broken into fine earth; because the clods turn the point of the root aside, and make the point short, or forked. Fresh dung, which, of course lies in unequal quantities in the ground, invites the tap root, or some of the side roots to it, and thus causes a short or forked beet." The Mangel Wurtzel may be cultivated much in the same manner, excepting the seeds may be further apart. We believe Col. Powell's method (described page 276 of our paper,) equal to any which can be adopted.

CABBAGE.—Set out cabbage stumps as soon as the frost is out of the ground. It is said in the Domestic Encyclopædia that "early cabbages may be procured by the following mode. In the spring as soon as the sprouts on the cabbage stalks have grown to the length of a plant fit for setting, cut them out with a small slice of the stalk, about two inches long; and if the season permit, plant them in a garden, and the usual care will produce good cabbages." The seed of cabbages should be sowed in the open ground in rows six inches distance. They may likewise be sown in autumn and in hot beds, but we have not room to state every possible variety in the mode of cultivating plants; our object being to mention merely the simplest and most economical. With regard to transplanting, &c. we shall say something in due season.

CARROT.—Dr. Deane observed "I have found by long experience that carrots should be sowed early. The last week in April is late enough, when intended for the feeding of cattle; and they may be sowed earlier, if the ground

* Cobbett's American Gardener.

† Deane's N. E. Farmer; Wells & Lilly's edition.

be in good order, and so dry as to be made light and loose. The earliest sown will be the largest, and, in the northern parts of the country, nearly as tender and as good as if sown later." Mr. Cobbett states that "the same season, same soil, same manure, same preparation for sowing, same inter-cultivation, same time of taking up, and mode of preserving the crop all belong to the carrot which are used with the beet. Some fine roots may be carefully preserved to plant out for seed in the spring; and the seed should be taken only from the centre seed stalks of the carrots, for that is the finest. The mark of a good kind is deep red color of the top. The paler ones are degenerate, and the yellow ones are fast going back to the wild carrot."

PARSNIP.—This plant may be cultivated in the same manner with beets and carrots. In England they are frequently raised by field culture, and by some are said to yield more and better food for stock or swine than the carrot or almost any other root.

RADISH should be sown thin in little drills six inches asunder, as early as possible in the spring, and a little bed every three weeks during the summer. As they are uncertain in their growth, it has been recommended to put in the seeds between rows of other plants; and they are so soon pulled up that they will not incommode the plants among which they grow.

PLANTING ON RIDGES.—This practice seems to be less generally approved of than formerly. Col. Powell, of Philadelphia, condemns it, (see N. E. Farmer, p. 277.) It is, we believe, less practised in England than it has been, although the moisture of the climate in Great Britain would seem to make it more proper for that country than for ours.

PREMIUMS OFFERED BY THE ESSEX AGRICULTURAL SOCIETY.

The article with the above title, with which we have commenced this day's paper, will reward a diligent perusal, not only of those who wish to become competitors for the premiums thus offered, but of every other person, who feels an interest in the theory or practice of agriculture. The variation from the usual objects of such donations appears to us to be judicious, and calculated to give new and profitable directions to the pursuits of the husbandman. The "Remarks" which accompany the statements of premiums, (as might well be expected from the eminent and scientific agriculturist, whose name is subjoined) will assist very materially in attaining the objects specified; and experiments made in accordance with those remarks, and detailed with accuracy, will add greatly to the general stock of agricultural knowledge.

Heligoland Beans.—A writer in the American Farmer, vol. v, p. 11, says: "Farmers are frequently imposed on, by those who first offer rare seeds for sale, and I generally make experiments on a small scale: if I find the article not valuable, or curious, I discard it; for instance, the Heligoland bean was puffed off, as a very valuable field bean, producing very abundantly. I procured two pints, (at the rate of sixty four dollars per bushel.) I planted them carefully in good ground, expecting to make enough to plant an acre or two, but was disappointed; I planted them two years, and concluded I had been imposed on. It is not necessary to give the character of this bean, as I believe all who have planted it have discarded it; I think it worthless in the extreme." We should like to know if this bean has been tried and condemned in the northern states, as we fully concur with a remark on this subject by the Editor of the Am. Farmer, viz. "It is perhaps more incumbent on us to report when the result is unfavorable than when it is promising—where is the benefit of experiments if the result be not made known? What would we say of the Pilot, who being wrecked on an

unknown shoal or rock, would refuse to anchor a buoy as a signal of danger to his brother mariner? yet we fear it is too much the fashion to suppress a knowledge of failures, in cases of new and unsuccessful processes."

Large Animals.—An ox, owned by Capt. Gilman, of Exeter, N. H. was lately killed and slaughtered in Portsmouth. The animal weighed alive 2420 lbs. the quarters 1753 lbs.—A hog brought in from Berwick on the same day weighed 754 lbs.; he was raised by William Smith, and purchased by Mr. Edmonds.

American Alum.—Samples of alum and Roman vitriol have been manufactured in Salem, Mass. which were forwarded to Professor Silliman, of Yale College, and are said by him to surpass any thing of the kind, which he had ever seen. "The works in Salem (says the Salem Observer,) give constant employment to nearly 20 men, and are under the management of Mr. Joshua Upham, a very capable and judicious chemist."

Cultivation of Grapes.—A correspondent in the American Farmer communicates the following method of propagating the Grape vine: Take a cutting of three eyes, and make a place by removing the earth, the same as you would to plant Indian corn in a hill, and lay in two cuttings flat at the bottom, of three eyes each, and cover them in the same manner that you would corn; out of a considerable number thus planted in a border scarcely one failed.

Preserving Vines from bugs.—A writer in the American Farmer remarks that "We last year adopted a contrivance (on the recommendation of another,) which I regard as of very great importance in the cultivation of melons. As soon as the young plants appeared, we put over them a box consisting of four pieces of shingles, or thin boards, nailed together, one foot long, and about eight inches broad—over the top of this box is stretched a thin piece of worn out muslin, or millinet, and the edges fastened with tacks to the side of the box. This cover, while it admits the air and light, protects the plants effectually from bugs and flies, and shields them from cold winds and frosts. The difference in the growth of the plants thus covered, and those which were left unprotected, was almost incredible, and I observed that while the latter were parched with the drought, the soil round the others was constantly moist, and their leaves in the morning were loaded with dew."

This device we have known put in practice with good success, and is in substance what we have recommended in a preceding article in this day's paper. To make assurance doubly sure, it might be well to scald the earth within the boxes with a decoction of elder, and thus preserve the seeds and young plants from worms as well as bugs.

Gas Lights.—A bill to incorporate a Gas Light Company, has passed both branches of the Legislature of New York. The practicability and economy of lighting streets and houses with gas is now fully established by repeated and successful trials. London and Liverpool, and many of the principal manufacturing towns in Great Britain, are lighted in this way. Hotels in Baltimore and Philadelphia are also supplied with gas lights, which are said to unite safety, economy and brilliancy, in a degree surpassing the expectations of those who introduced the improvement.

Don't scald your Poultry.—A writer in a Connecticut paper, remarks upon scalding poultry, as follows:—Scalded fowls are ill looking and will not sell for so much as those that are picked, and soon spoil, often before market; otherwise the feathers, although not of the first quality, will amply pay for plucking. By scalding, poultry is deprived of its delicious flavour, is made insipid, often producing what is termed rising on the stomach.

The application of Chemistry to the art of coloring (says the Providence Journal) is making rapid advances in this country. The artist is no longer obliged to grope in the dark for experience. Acquainted with those natural laws which are applicable to his profession, he goes on from one improvement to another with that confidence which is always inspired by knowledge.—Our blacks and blues are now as firm and brilliant as those of the best artists in Europe.

LATEST NEWS FROM EUROPE.

By a late arrival at New York, London papers have been received to the 5th, and Liverpool to the 7 March. These rather increase than diminish the chances of apprehension of war between France and Spain.

The session of the extraordinary Cortes had been solved. They had previously decreed the removal of the King, and transfer of the seat of government should invasion take place, to Cadiz. The King proposed this, and dismissed his ministers. As soon as was known the populace assembled, and threatened assault the palace. The king was alarmed and recalled his ministers, and it is supposed that he will comply with their wishes. He sits upon a tottering throne, which probably a popular gust will eventually overturn.

Meeting of Parliament.—Parliament assembled the 4th of February, and his Majesty's Message read. In this it is stated that "his Majesty declining being a party to any proceedings at Verona, which could be deemed an interference in the internal concerns of Spain on the part of Foreign Powers, his Majesty has since used, and continues to use, most anxious endeavors and good offices to allay irritation unhappily subsisting between the French and Spanish Governments; and to avert, if possible, calamity of war between France and Spain." It is plain, therefore, that the British government does not approve of the conduct of the Congress at Verona in regard to Spain, and this is an important point gained by the Spaniards. If the British Lion does not roar and shake himself on this occasion he must be a long old beast, and deserves to have his whiskers spun in rope yarn, his claws submitted to the operation of Ford's or Eastman's Straw Cutter, and his eye knocked out with a mallet. A mere declaration on the part of Great Britain that she would make a common cause with Spain, would keep the restless French termiddlers on their own side of the Pyrenees, and the peace of Europe would be preserved without suffering a stroke.

French Debates.—The French Assembly has had stormy session. Many of its members reprobate war, but the majority seem determined to plunge into two rations in a sea of blood, which threatens to overwhelm all Europe rather than not support the Bonapartes. The "contagion" of Liberty they consider more to be dreaded than the plague, and are determined to put a stop to its progress by destroying the taints already infected. It is to be hoped, however, that it will break out in the camps of the invaders, a cause their forces to wither like so many unrooted cabbage plants exposed to a burning meridian sun.

A friend to Liberty.—Manuel, a member of the French Chamber of Deputies, has made himself famous by his opposition to the unjust and nefarious Crusade against freedom in Spain. He attempted repeatedly to utter his sentiments, but was as frequently overpowered and his voice drowned by the hubbubs of the partizans of despotism. The people without, the spectators, and multitudes in the streets, cheered and applauded the efforts of Manuel, and it is the opinion of some sagacious observers that his exertions, together with the manner in which the populace have received him, will induce the French government to pause before they enter Spain, and perhaps cause the indefinite postponement of hostilities.

Oporto is now open to the admission of foreign grain about 1600 tons had arrived; but such is the extent of the wants of the country, that it produced little or no impression on the markets. It is expected that Lisbon will also be opened. Barcelona has also been opened for two months, from the 14th of February. There is no doubt but that scarcity exists in all the provinces of Spain and Portugal.

The Emperor of Russia arrived in the capital of his dominions on the 3d February, after an absence of six months. He immediately proceeded to the cathedral of our Lady of Cassan, where Te Deum was performed for his safe return. The city was illuminated in the evening.

Voyage of Discovery.—It has been reported that the vessels under Capt. Parry, which undertook to seek a north-west passage, had been seen in the Pacific ocean on their return, after having effected the object of their voyage. This report, however, we are sorry to observe, has been contradicted.

Storm.—Papers from the South give sad accounts of the effects of the late storm. At Norfolk the rain and lightning were very severe, with much hail and little snow. In Philadelphia considerable damage was done to the shipping and wharves, and quantities of cord wood were floated away by the unusually high tide. The Democratic Press informs "the sloop Tripler, with several smaller vessels, literally been ground to pieces." The N. York Herald Advertiser gives a long and deplorable account of disasters among the shipping and wharves, several buildings on shore were likewise demolished—the fury of the equinoctial tempest.

Piracy and Murder.—Captain Robinson, of the brig *Albatross*, from New Orleans, states, that the brig *Albatross*, in Perkins, of Kennebunk, arrived at the Balize on the 21st of March from Port au Prince, via. Cambray. While at the latter port, Capt. Perkins' brig was boarded by a piratical scho. of about forty tons, armed with a crew of forty brutes in human shape, headed by Capt. P. in several places, and cut off his arm. Capt. P. then made known where the pirates would find what money was on board, which amounted to about two thousand doubloons. Not satisfied with this, the murderers proceeded in their work, and cut off the right arm, and one of his legs, the knee. The inhuman monsters then dipped quantities of oakum into the oil, and after filling the mouth of poor Perkins with this combustible, they set him in the oakum, and setting fire to it, soon terminated his sufferings. The mate was stabbed through the thigh. The brig was robbed of every valuable article.

The French brig *Jenne Henriette*, from St. Jago de Capatzen, having been robbed of almost every thing on board, has put into Savannah. Two ladies, passengers in the scho. bound to New Providence which had been previously robbed, were put on board the French brig. The ladies have been robbed of every thing. One of them, with a small child by her side, was put round her neck, and a knife held to her throat to enforce a disclosure whether any money was on board. The ladies suppose the crew to have been murdered.

Mr. Harding, who arrived in Boston last Monday, says from Havana, left there, scho. *Evergreen*, Capt. Upton, from Salem, just arrived—was chased by the Bay of Matanzas, by two piratical boats, and being down for Havana, threw over her deckboard, and got clear of a piratical scho. Brig *Alert*, of Portsmouth, from New Orleans, with a deck load of live stock just arrived. Off the Moro, she was boarded, by two piratical boats, with six men and *Captain Charles Blunt*, (of the *Alert*) was thrown overboard! The Cook was stabbed through the stomach, and nearly devoured by the hogs before being discovered and rescued. Several crew badly wounded, and the brig robbed.

Michael Doak Dennis, a foreigner, for many years a slave of a man of war, but who had lately been set free to preach the gospel, has been sentenced to the months imprisonment, for abusing and insulting a respectable married woman, at Newburyport, by using low and offensive language.

It is stated by the Georgetown Metropolitan, as an evidence of the pressure of the times, that there were one hundred applications for the office of clerk in the departments, vacated by the death of a recent incumbent.

Mr. H. Traphegen, of Harsimus, N. J. raised last year about 20,000 cabbage heads for this market, but being unable to dispose of the whole from his farm, he manufactured the residue into *sour kraut*, which he now sells at from 8 to 10 dollars per barrel, for exportation to India.—N. F. American.

Cals.—Our brethren of the Southern States (says the New York Statesman) will probably be surprised to learn that upwards of two thousand men have been sent upon our canals during the whole of the cold winter passed. In May next the number will be increased to six or seven thousand, and by October it is expected to open the navigation from Lockport to Albany 330 miles. Thus we manage matters in this State.

ELECTION OF GOVERNOR, &c.

Last Monday was the day for the election of Governor, Lieut. Governor and Senators, throughout the State. The votes in this city were as follows:

Hon. H. G. Otis, 2836.—Hon. Wm. Estlin, 2728. We have returns from 213 other towns, which give Otis 24,592—and Estlin 27,902. Maj. for E. 3,310.

SENATORS ELECTED.

Suffolk.—John Phillips, Thomas H. Perkins, Peter C. Brooks, Samuel Hubbard, Benjamin Gorham, and Thomas L. Winthrop.

Essex.—Nathaniel Silsbee, John Prince, William W. Parrott, Nathan Noyes, Aaron Lummus, and Moses Wingate.

Middlesex.—Joel Cranston, Levi Thaxter, Jno. Wade, Seth Knowles, John Keyes.

Norfolk.—John Ruggles, Josiah J. Fiske, Sherman Leland.

Sufficient returns have not been received to enable us to state who are elected in the other counties.

Distressing Accident.—David Dunham, Esq. a respectable merchant of New York, fell overboard from a sloop in descending North river, about forty miles above the city, and was drowned.

Miss Mary Davis, of Franklin county, N. C. lately wove a bag which will hold three bushels, without a seam. It was wove with three treadles.

New Potatoes of the growth of the present season, raised by Aaron Sisson, of Seekonk, were brought to town on Saturday, and served up at Horton's hotel, yesterday, at dinner. They were planted late in autumn, and covered with a layer of sea-weed and earth. *Providence Journal.*

Postage.—A gentleman of Manchester, (Eng.) lately had to pay for a letter, one pound, fourteen shillings and ten pence. It contained a gown of the value of twelve shillings, sent as a present to his wife, and ordered through mistake "by post."

This reminds us of a member of Congress, not far from South Carolina, who franked Scott's Family Bible, and sent it in the mail from Washington to his wife.

The late Mr. Granger, while Post Master-General, availed himself of his privilege of travelling gratuitously in the Mail Coaches—but on one occasion the driver, not apprized of his station, told him that if he wished to go free, he must get into the mail. This expedient, which was totally impracticable, was fortunately unnecessary.

THE STATISTICAL ACCOUNT OF SCOTLAND,

DRAWN up from the communications of the Ministers of the different parishes, by Sir JOHN SINCLAIR, Bart. 21 vols. 8 vo. complete, only one copy; will be sold at the very reasonable price of \$50.—Among 58 heads of inquiry addressed to each minister (the whole being too numerous for an advertisement) as a guide for their reports, are—Name, and its origin; description of the soil and surface; climate and diseases; instances of longevity; mode of cultivation; implements of husbandry; manures; seed time and harvest; quantity and value of each species of crop; total value of the whole produce of the district; wages and price of labor; manufactures; man. of kelp; police; roads and bridges; state of the Church, stipend, &c. number of the poor; parochial funds and the management of them; schools, and scholars; number of souls; cattle, nature and value; sheep do.; swine do. coal and fuel; antiquities; character of the people; advantages and disadvantages; means by which their situation could be meliorated. "No publication of equal information and curiosity has appeared in Great Britain since Doomsday Book; and that, from the ample and authentic facts which it records it must be resorted to by every future Statesman, Philosopher and Divine, as the best basis that has ever yet appeared for political speculation."

Also—The Complete Grazier, &c. 1 vol. 8 vo.—American Orchardist—Cully on Live Stock—Farmer's Assistant—Farmer's Manual—American Gardener—Villa Garden Directory—Cox on Fruit Trees, &c. &c. For sale by R. P. & C. WILLIAMS, Cornhill Square, Boston. April 12.

PRICES OF COUNTRY PRODUCE, &c.

[Revised and corrected every Friday.]

		FROM	TO
		D. C.	D. C.
ASHES, pot, 1st qual.	ton.	150 00	152 50
pearl do.		157 00	159 00
BEANS, white,	bush.	1 00	1 10
BEEF, mess, 260 cwt.	bbl.	9 50	
cargo, No. 1.		8 00	8 50
" No. 2.		6 50	7 00
BUTTER, inspect. 1st qual.	lb.	14	15
" 2d qual.		13	13
small kegs, family,		13	16
CHEESE, new milk		7	8
FLAX		6	9
FLAX SEED	bush.	85	90
FLOUR, Baltimore, superfine,	bbl.	7 50	7 62
Genesee		7 50	7 75
Rye, best		4 50	5 00
GRAIN, Rye	bush	30	83
Corn		63	63
Barley		62	65
Oats		45	45
HOGS' LARD, 1st sort	lb.	9	
HOPS, No. 1,		10	12
LIME,	cask	1 25	1 50
OIL, Linseed, American	gal.	65	70
PLASTER PARIS	ton.	3 00	3 25
PORK, Navy Mess	bbl.	12 00	12 50
Bone Middlings		14 00	14 50
Cargo, No. 1,		12 00	12 50
Cargo, No. 2,		11 00	11 50
SEEDS, Herd's Grass	bush	2 25	2 50
Clover	lb.	3	9
WOOL, Merino, full blood, washed		58	65
do. do. unwashed		45	47
do. 3-4 washed		47	50
do. 1-2 do.		45	48
Native		38	40
Pulled, Lamb's, 1st sort		55	60
do. Spinning, 1st sort		47	50

PROVISION MARKET.

BEEF, best pieces	lb.	3	12
PORK, fresh		6	9
VEAL,		6	10
MUTTON,		5	7
POULTRY,		10	12
BUTTER, keg & tub		15	16
lump, best		16	18
EGGS,	doz.	16	12
MEAL, Rye,	bush	85	90
Indian,		76	80
POTATOES,		37	
CIDER, liquor,	bbl.	1 50	
HAY, best,	ton.	20 00	22 00

SAFFORD'S STRAW CUTTER.

THE utility of cutting Hay, Straw, and other substances for feeding cattle, is now so universally acknowledged that any remarks on the subject must be deemed superfluous. The following Certificate will therefore be conclusive of the merits of the above mentioned Machine.

Boston, March 22, 1833.

We, the subscribers, have in operation a Straw Cutting Machine invented and exhibited in this city by Noah Safford, and we do not hesitate to say that in our opinion it exceeds any other we have ever seen, for cheapness, simplicity, despatch and durability.

STEPHEN HARTWELL, FURR & HOLMES,
HEZEKIAH EARL, ANDREW SLATER.

The above mentioned Machines may be had of J. R. NEWELL, at the Agricultural Establishment, No. 20, Merchant's Row, Boston. Price \$15.

TERMS OF THE FARMER.

Published every Saturday, at THREE DOLLARS per annum, payable at the end of the year—but those who pay within sixty days from the time of subscribing will be entitled to a deduction of FIFTY CENTS.

No paper will be discontinued (unless at the discretion of the Publisher) until arrearages are paid.

Complete files from the commencement of the paper in August can be furnished.

From the Connecticut Herald.

AN ACRE OF CORN.—By DR. PERCIVAL.

I am a poor Ploughman, who never have wander'd
Away from the sight and the pleasures of home;
I have always been prudent, and never have squander'd,
And so I have never been driven to roam.
For thirty long summers my shoulders have bended
In tilling the farm where my father was born;
I live under his roof, and this season have tunded
With the plough that he left me, an acre of corn.

Though others may go to the Southward and peddle,
And bring home of guineas and dollars good store,
I never have desir'd with their cranks to meddle,
But to hoe in my garden that lies by my door.
When the sun is first rising I always am hoeing
The mould, when 'tis wet with the dews of the morn;
And when he is higher you will find me a mowing,
Or driving the plough in my acre of corn.

There are some who are crossing by sea to the island
They call Santa Cruze, with their horses and hay;
For my part, I'd rather be safe here on dry land,
And hoe in my garden, or work by the day.
I am out to the field with the sun, and am mowing
'Till called up at noon by the sound of the horn;
Or else I am twirling my hoe, and am throwing
The mould round the roots in my acre of corn.

This corn is the sort that is tufted and bowing,
And when we have thresh'd it, 'tis made into brooms;
'Tis the best of all besoms, so far as I'm knowing,
To sweep out the dirt and the dust from our rooms:
They always have rais'd it, since I can remember,
And, my father once told me, before I was born
He made brooms for his trade, and I guess by December
I shall make up a load from my acre of corn.

AURORA BOREALIS, OR NORTHERN LIGHT. (Concluded from page 283.)

It is known that the electrical fluid pervades every part of the earth and its atmosphere.—This substance, like all other fluids, has a tendency to become equally as well as universally diffused over all the objects and space which it pervades. The equilibrium, however, may, by various causes, be destroyed for a time. The process which nature institutes for restoring the equilibrium is sometimes carried on in a silent and invisible manner—sometimes it is accompanied with a hissing, or crackling noise, and sometimes it flashes in lightning and roars in thunder. A body which has more than its natural quantity of the electric fluid is said to be positively or too much electrified; and a body which has less than its natural quantity is negatively or too little electrified. These extremes may be produced by art. In turning the glass cylinder of an electric machine, you deprive the rubber of its natural quantity of electricity, and it accumulates in the glass, and thus the former becomes negatively, and the latter positively electrified. By presenting a needle towards the conductor you will see a bright point near its extremity, and hear a hissing noise. This is the same phenomenon, on a small scale, with that which appears so wonderful in the aurora borealis.

It has been well ascertained that cold air, or cold substances, such as ice or snow, are positively electrified. Warm air, especially if it is moist, is negatively electrified, or a non-electric substance. Those substances which are positively electrified are perpetually giving out the electric fluid to all surrounding objects, and those which are negatively electrified are perpetually receiving the same fluid from objects about them. The same thing takes place with regard to caloric or the matter of heat. If a red hot iron is exposed to the atmosphere, sup-

pose at the temperature of summer heat, it gives out caloric to the atmosphere; but a piece of ice, with the same exposure, would receive caloric from the atmosphere. And, in the same way, ice or snow, having a surplus of electric fluid, discharges a part into the atmosphere, when it is comparatively warm, and has of course a deficiency of the electric fluid. But if the earth be warmer than the atmosphere the former becomes non-electric and receives the electric fluid from the latter, as is generally the case in thunder storms, when some parts of the atmosphere must be intensely cold, which is apparent from the circumstance that such storms are often accompanied with hail, which could only be generated where the cold was extreme.

We shall attempt to make our meaning very obvious by adverting to some instances of the electric fluid rendered visible to the senses, in its passage from the earth into the atmosphere. On the 18th of Jan. 1817, in Andover, Vermont, there was a heavy fall of snow, accompanied with lightning and thunder. Joel Manning, Jr. Esq. of that place, in a communication for the Vermont Republican, states that during that storm, he, together with a companion observed "on the top of a stake in the fence, a light, resembling a blaze of fire, about two or three inches in length, though not so red and brilliant. We soon observed that on every stake was a light, and also on the highest branches of bushes by the side of the fence. This excited so much wonder and curiosity that we called the people of the house, and also some who were passing in the street, to see the phenomenon. We soon observed it on our hats, hair and mittens, when held up, not in the form of a blaze, but of bright white sparks of various sizes, from those which were just discernible to those of the size of buck shot. On one stake there were three of those blazes. On two or three stakes they emitted a sound resembling the hissing of a pot when it boils."

Similar appearances were observed in Putney, Vermont, during the descent of a moist snow, accompanied by a heavy clap of thunder, on the evening of the 3d of April, 1818. These phenomena, were, no doubt, aurora borealis on a small scale, and resembled those which have been before mentioned as having occurred in Siberia, even to the "hissing or crackling noise" which has been represented as adding terror to the sublimity of their appearance.

It is undoubtedly the case that many of the prodigies recorded in ancient history were caused by apparitions of the electric fluid, similar to those above described. Streams of electric fire have been seen issuing from the points of the bayonets of soldiers passing the Alps and other mountainous places. Vessels at sea sometimes show their mast heads and yard arms illuminated as it were by magic, and men's heads have been seen surrounded with a halo of glory, such as painters represent about the head of a saint. These, as well as the northern and southern lights, are unquestionably among the modes by which electricity, that universal, all-powerful, but usually invisible agent sometimes makes itself manifest to our senses.

It has been generally supposed that northern lights were never seen or noted by the ancients. The first notice of them in English annals, according to Rees' Cyclopaedia is an account of an appearance, Jan. 30, 1560, called "burning

spears," by an author of that period. In our country they are said to have been first observed a little previous to the old French war. There is, however, but little doubt but that the prodigies mentioned by ancient historians, of armies in the sky, troops of celestial beings, men skirmishing in the heavens, &c. were nothing more than northern lights, magnified and shaped into fighting phantoms by fear and superstition. These were particularly noted as having appeared at the siege of Jerusalem, the death of Julius Caesar, and other great and eminent occasions. The following from II Maccabees, ver. 2, 3, seem as remarkable, and perhaps, as vividly described as any record in ancient history.

"And then it happened, that through all the city, for the space of almost forty days, there were seen horsemen, running in the air, cloth of gold, and armed with lances, like a band of soldiers."

"And troops of horsemen in array, encountering and running one against another, shaking of shields, and multitude of pikes, drawing of swords, and casting of darts, glittering of golden ornaments, and harness of all sorts."

PROPOSALS,

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BY SELLECK OSBORN.

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NEW ENGLAND FARMER.

PUBLISHED BY THOMAS W. SHEPARD, ROGERS' BUILDINGS, CONGRESS STREET, (FOURTH DOOR FROM STATE STREET.)

VOL. I.

BOSTON, SATURDAY, APRIL 19, 1823.

No. 38.

FACTS AND OBSERVATIONS RELATING TO AGRICULTURE & DOMESTIC ECONOMY. FOR THE NEW ENGLAND FARMER.

PRESERVING AND IMPROVING THE QUALITY OF GRAIN.

When wheat has been injured during a bad harvest, it ought to be put into small stacks, in which state it will dry much more quickly, and is sooner rendered fit for grinding into flour. If stacked in a damp condition, it should rarely be threshed earlier than the summer after it has been harvested, when its condition will be greatly improved.

Wheat, if not in good condition, is much improved by kiln-drying; but it should not be dried, unless in cases of necessity, until some time after it has undergone that operation. It ought to be moderately kiln-dried, with a slow fire, and frequently turned. But if the grain is musty, it ought to pass through a previous process, which is thus described by an eminent agriculturist.

The wheat must be put into any convenient vessel, capable of containing at least three times the quantity, and the vessel must then be filled with boiling water; the grain should then be occasionally stirred, and the hollow and decayed grains, (which will float) may be removed.

When the water has become cold, or, in general, when about half an hour has elapsed, it is to be drawn off. It will be proper then to wash the grain with cold water, in order to remove any portion of the water, which had taken up the must; after which, the grain being completely drained, it is, without loss of time, to be thinly spread on the floor of a kiln, and thoroughly dried, care being taken to stir, and turn it frequently during this part of the process.

By this simple operation, it is said that grain, however musty, may be completely purified with a very little expense, and without requiring a very expensive apparatus.* Mere ventilation, however, has been recommended as a means of preparing grain for use, sufficiently effectual.

When grain has been infected with smut, it can be thoroughly cleaned, however black it may have been, in the course of three washings, in a wooden tub. The wheat should be afterwards kiln-dried.

It has been generally supposed, that if wheat be much injured during a bad harvest, the flour made from it will not ferment, or bake into loaf bread, and that it is only fit for distillation, or to be eaten by live stock. But such an appearance to be erroneous. With the aid of yeast, the flour may be much improved; and, at a moderate rate, may be made into cakes or biscuits, and consumed with safety and advantage."

Code of Agriculture.

No doubt but the mode here recommended for preparing other kinds of musty grain would answer for musty or sour Indian Corn.

It may likewise be made into what are called *flour cakes* in Scotland, prepared with milk instead of water. Aspecies of bread, wholesome and palatable, but not fit for laboring people, being too easily digested. Perl ash, or Magnesia will answer a similar purpose with soda. For a mode of using the latter substance, see N. E. Farmer, No. 1, p. 4.

MANAGEMENT OF THE GRAIN IN GRANARIES.

Granaries in Europe are large buildings of many stories, each of which consists of one entire apartment, where the grain, by turning and sifting is deprived of its superfluous moisture, and rendered more fit for grinding into flour. These operations are performed in the following manner: the corn being deposited on one of the floors, it is tossed by means of shovels from one end of it to the other, in which operation the dust and any other light substance falls to the floor, whilst the grain, being heavier, reaches the farther end of the floor.

It is then sifted and spread on the floor about half a foot thick, turning it twice a week, and sifting it once, which management must be continued for the first two months. The grain is then laid a foot thick, and for the two next months is turned once a week, and screened less frequently. This management is to be continued for five or six months, when it may be increased to two feet thick, and the former operations repeated as occasion requires, which will be more frequent in damp than in dry weather.

The above directions are calculated for the climate of Great Britain, which being remarkably moist, requires greater precaution for preserving grain, than would, perhaps, be necessary in the U. States. In a matter of great consequence, however, it is better to take too much than too little pains, and give your grain one or two, or half a dozen superfluous siftings, than to suffer it to spoil for want of due attention.

Dr. Walker, in his *Economical History of the Hebrides*, gives us a dismal picture of the circumstances of some of those islands, with regard to timber. "The inhabitants" (he observes) "have to undertake a dangerous voyage, from thirty to seventy miles, before they can build a barn, make a plough, or even procure a flail, or the handle of a spade. This want of timber distresses the people in their houses, in their husbandry, and in every art."

The same writer, and in the same work, takes notice of a peculiar product of the bark of the white birch (*betula alba*). It is a gum of a very agreeable smell, which in winter and spring covers the buds, and abounds in the bark. It is glutinous, odoriferous and inflammable; it is extracted by the Germans and Russians in the form of an oil, which is employed in tanning leather, to which it communicates an agreeable odour. The process of extraction, he says, is simple and easy, a countryman could be taught it in a day, but does not explain the process. Dr. Walker adds "the oil is a powerful vermifuge. In Lithuania and Courland, it is used for curing the itch and vermin in cattle; if it could be procured cheap and in abundance, it might be found preferable to butter and tar for smearing sheep." We wish some of our chemists and medical men would give us a little of this *oil of birch*, together with directions how to obtain it in quantities—its medical and economical properties, &c. The tree itself is very common, we believe, in most of the woodlands of the northern states.

WOOD LOTS SHOULD BE FENCED AGAINST CATTLE.

In the General Report of Agriculture in Scotland it is stated that "One of the great causes of the disappearance of the extensive forests, which authentic history assures us to have existed in former periods in Scotland, unquestionably is the introduction and multiplication of cattle, and of sheep especially. In the bite of cattle there is a peculiar malignancy to the growth of woods: the irregularity of the incision poisons the plant. The very rubbing of cattle against a tree, by stripping off the fine scarf-skin of the bark, and leaving the abraded hair of wool, is alone a poison to the tree."

ON LAYING DOWN LAND TO PASTURE.

When pasture is intended, the scythe is never admitted by many farmers, it being an established maxim, that cutting the grass the first year is highly pernicious to it afterwards. Nor is this difficult to be accounted for. The scythe is pernicious because the herbage has been allowed to get too old before it is used. The bite of cattle might be as injurious, if the grass or herbage were only to be eaten at an advanced period of its growth, and if eaten equally low with the cut of the scythe, or as grass is generally cut down. Perhaps the state in which the scythe leaves the roots, exposed to injury from the weather, after they have put forth all their powers, is likewise injurious. The bite of cattle, on the other hand, is like the operation of clipping the top of a thorn-hedge, which has always the effect of thickening the lower branches.*

PERMANENT PASTURES AND MOWING LOTS.

It appears to us that our enterprising farmers frequently incur a great expense without adequate remuneration, in breaking up and cultivating old pastures. We do not maintain that it may not sometimes be advisable, and the experiment of Messrs. Rice & Howe, as mentioned No. 29, pages 228, 229 of our paper, seem to be in favor of the practice. We have known, however, pastures ploughed up at a great expense, which were so situated that manure could not be applied, without costing too much for profitable tillage, and after one or two crops of rye had been forced from the soil it was laid down again to grass. But we have invariably found the last state of such land was worse than the first. If pasture or mowing land is broken up at all, it ought to be tilled thoroughly, manured plentifully, and be in *good heart*, as farmers phrase it, before it is laid down again to grass. Mowing ground which has been once converted into tillage, will sooner be *bound out*, or become too toughly swarded, than that which has been continued in grass. It is, however, sometimes expedient to break up lots for the sake of levelling the hillocks or "*cradle hills*" as they are called, subduing bushes, clearing away stones, &c. even when such lots are intended to be principally if not permanently devoted to grass. But, it is a fact, perhaps not generally known or thought of, that land which

* Gen. Report of Agriculture in Scotland.

has been once ploughed and made mellow, then laid down to grass, and mowed or pastured, without manure, will in a few years become more hard and compact than if it had never been visited with a plough. It has been observed to us, by a friend, who is well acquainted with the theory and the practice of farming, that if a hole is dug in the ground, (say for the purpose of setting a post) and the earth taken out is returned again, it will, in a few years, settle so that its surface will be somewhat lower than it was before the excavation.

The following are the advantages of permanent pastures as enumerated by a British writer: "Old pastures feed cattle to a greater weight; they are not so easily scorched by the summer's drought; the grasses are more nutritive both for sheep and cattle; milch cows fed upon them give richer and more butter; the hoofs of all animals feeding on them are better preserved; they produce a greater variety of grasses; when properly laid down, they yield a succession of pasture through the season; the herbage upon them is not only sweeter, but more easily digested. On all these accounts old turf is said to be superior to pasture on land more recently laid down to grass. Accordingly, permanent pasture is held in the highest estimation, and proprietors, by rigid stipulations, and the exaction of severe penalties, restrain tenants from ploughing them up."* The same author, however, allows that when grass lands are properly treated, after being broken up, if again laid down to grass, they are not found to be deteriorated in the smallest degree, but the reverse. By "properly treated" it appears is meant thoroughly ploughed, and made mellow, well manured, and fitted with a proper rotation of crops.

The following rules are laid down by the same writer. "1. To enclose those pastures where practicable, as the same quantity of land, when sheltered, will feed a greater quantity of stock, and to better purpose, than when in an open and exposed state. 2. Never to overstock poor pastures; for when this is done, not only are the cattle starved, and the quantity of food diminished, but the soil is impoverished. 3. When the pasture ground is inclosed and subdivided, the stock ought to be shifted from one enclosure to another at proper intervals. This practice tends to increase the quantity of grass, which has thus time to get up, and the ground, being fresh and clean when the stock return to it, they will feed more greedily and with greater relish. 4. The dung dropt by the stock while feeding, should be spread about, instead of remaining in the place where it was left. 5. Where the larger and the smaller kinds of stock are to be fed on the same pastures, the larger species should go first. 6. It is not advisable to depasture with a mixed collection of different species of live stock, unless the field is extensive, and also, perhaps unless the herbage be of a quality somewhat different, in different parts of the field."

MOSS ON FRUIT TREES.

"The trees in old orchards, especially where the bottom is moist, often get overrun with moss. These are sometimes merely rubbed off; and this is more easily and effectually done

in wet weather than in time of drought. A hollow iron instrument is sometimes employed; but a hard wooden scraper, shaped like an ivory folder answers very well. The trunk and branches are afterwards hard swept with a birchen broom. It is found very useful, after rubbing, to wash with soap suds, or to apply a coating of the consistence of paint, of a mixture of equal parts of quick lime, cow droppings and clay. Liming and dunging the ground about the trees is found to be a good preventive of moss."* Soft soap is said to be a good application to the trunks or bodies of fruit trees.

IRON NAILS INJURE FRUIT TREES.

It often happens that some of the limbs of fruit trees, trained against a wall, are blighted and die, while others remain in a healthy and flourishing state. This has been erroneously attributed to the effects of lightning; but from closer observation it has been found to arise from the corroding effects of the rust of the nails and cramps, with which trees in this situation are fastened. To avoid this inconvenience, therefore, it requires only to be careful in preventing the iron from coming in contact with the bark of trees.

* Gen. Report of Agriculture in Scotland.

From the Albany Argus.

Mr. Janes' Speech in the House of Assembly, on the Bill to repeal the Law for the Improvement of Agriculture.

MR. CHAIRMAN—As my feelings, habits, and interests, are altogether agricultural, I cannot consent to give a silent vote on this occasion. I shall not however, attempt to go much into detail on the subject, but merely throw out a few desultory observations.

I confess sir, that I am not a little surprised to see gentlemen, and farmers too, so zealous in endeavoring to vote down a law, which has been one of the principal means of elevating their profession from a secondary, to the first rank in society; let us for a moment look back twenty years, and see what was the state of agriculture at that day, and in what grade of society the farmer was then ranked. I well recollect when the farmer was considered a subaltern, in almost every point of view. Within my recollection, the interests of agriculture in Berkshire county, was at its lowest ebb, and such was the state of the public mind as to occasion such extensive emigrations, as seemed to threaten a depopulation of a fair portion of the county.

I have since seen the same county flourishing and happy, its citizens engaged in the great business of agriculture and domestic manufactures, the cultivator of the soil as respectable and honorable as the judge upon the bench, or the dealer in silks.* The question now arises, how happens this reverse of times? Sir, it is produced by the liberal spirit which is contained in the principles of the law, which we are now attempting to repeal; it is brought about by our agricultural societies. As it respects this state, the fact is that the soil is generally so productive, that it may be said that nothing more seems necessary to be done, than to plough and sow; that the meanest capacity is as likely to realize a good crop, as the most skillful ag-

riculturist. This consideration, if it had reweight to sustain it, is not entitled to improve this committee unfavorably to agricultural societies, for it ought to be recollected, that many of our poor lands were also once equally productive, and that now, under the old system of husbandry, without the aid of some science would become a barren waste. We have societies and schools for promoting a knowledge of the healing art, of philosophy, letters, natural history, military science and many other important objects: man is a social animal, and we look through the whole of his moral constitution, we find that no objects of great importance are accomplished, except by the joint cooperation of many to the same end; no man can embrace perfect knowledge; if he could it would die with him unless communicated to others; hence the benefit of all these institutions, by which the discovery of one is imparted to many, and perpetuated to future ages. New improvements are made upon the old; accidental discovery leads to a new and improved system: and mutual instruction carries us to the highest state of improvement, of which human society is capable. Is it then to be admitted that agriculture is so low, and so degraded an employment, that nothing more is to be learned on that subject? This at least seems to be the opinion of some gentlemen. Are we ready to say, that the farmer is a mere brute animal like his ox, who has only to exert his strength; that his occupation neither needs nor admits of the application of good sense, science, invention or improvement? For myself, sir, I think far otherwise; I believe there is no pursuit in life, in which there is more employment for the best faculties of an enlightened understanding.

The farmer should have a thorough knowledge of soils, and the best and most improved methods of cultivation; he should be ready to adopt the improvements that tend to the saving of labor and expense, and the increasing of products. If there is a way to make two blades of grass grow, (and there are many such ways) where but one grew before, he should know it, and give himself and his country the benefit of it. If a breed of stock is found, more kind of milk or fat, than he had before, his attention should be alive to the subject. Sir, I think will not be denied, that great improvements have been introduced, in these respects, and is no wise likely, that we have yet attained perfection.

I beg leave to cite one example of great extent and importance, of an improvement, which has been brought about by the efforts of ingenious farmers. We all know what was the old system of letting wheat land lie fallow from one to four years; it was the custom in this country, and perhaps in many parts, prevails even yet.

It is only in our own day in this country, that the alternate system of grass crops, and grain has come into use. It is now found much better for the lands to bear a crop of clover or turnips, or some such article, by which more manure is made, and the land improved, while the value of the crop is gained. This single improvement, when followed up, and universally adopted, will perhaps double the means of subsistence. If we confine our views to this single fact, which cannot be controverted, and in supposition that the practice shall become general

* Gen. Report of the Agricultural State of Scotland, pages 24, 25.

* Mr. Janes was formerly a resident in Berkshire, and was an early patron of the Agricultural Society.

rough the instrumentality of agricultural societies, let me ask, is the sum, which would probably be expended in the two years to come, be brought into competition with such an important improvement.

These are the mere items on the score of improvements which are now making. Can it be denied, that our farms would be better, and more productive, if these things were more generally understood.

It is in these societies, that they are explained, exemplified and encouraged; they are therefore of immense benefit to the public.

I will offer one other remark. A thirst for agricultural knowledge, has gone abroad in the world, and will increase; great improvements are rapidly making; is it better then for our farmers, that this knowledge should be limited and confined to a few, or that it be extended and diffused to the many.

Every farmer, who has natural understanding, ought to be a well informed man, in reading and thinking, in theory and practice; such we ought to be, and such the farmers of this country can be.

In my view, sir, one of the best means to give rise to that dignity, and respectability, which I consider as belonging to an American farmer, would be, to establish and perpetuate the system,* which this bill contemplates to establish.

In short, sir, I am unwilling to part with a law which has been so beneficial to the best interests of the state—a law which has been so instrumental in producing that equality among our citizens, which is so essential to the prosperity and happiness of all republican governments.

I hope at least we shall permit this law to die a natural death. I shall therefore vote against the bill with all its amendments.

* As some gentlemen doubted, whether the state of Massachusetts sustained her agricultural societies, the best answer I can give, is an extract from Gov. Brooks' speech to the legislature of that state. He says:

"You will, I am sure, observe with complacency attention bestowed on agriculture. The improvements manifested in the culture of the soil, and in the quality of our stock, have increased the amount of our productions, which, after yielding an ample supply for our own consumption, has furnished a respectable surplus for the purpose of commerce."

"To the ordinary motives to agricultural enterprise, arising from personal and domestic wants, and from the certainty of producing a ready market for a surplus, there have been superadded in the course of the last few years, munificent grants of the legislature, to the respective agricultural societies in the state, and the no less liberal contributions of individual citizens to the same object."

From the American Farmer.

NORTH DEVON CATTLE—THEIR PRICES IN ENGLAND.

Many gentlemen express surprise at the prices asked for cattle of improved breed, from imported stock, without reflecting sufficiently on the causes, which go to shew the justice and reasonableness of such prices. The breeds in highest estimation now in England, are the Improved short horns, the Herefords, and the North Devon cattle. These several breeds, in the perfection they now exhibit for the various purposes, for which neat cattle are reared, have been brought to their present condition, by immense expense, by great skill in the selection

of the progenitors, and unwearied attention to every particular, for more than half a century. Is it then reasonable to expect, that they should be sold for any thing near the prices of common cattle? As well might we expect to purchase a fine full grown tree, bearing abundantly the high flavored pipin, for the price we should have to give for the scion of a common red-streak. We have ascertained by actual purchase, the cost of the improved short horns, when procured under the most favorable circumstances, and from one of the very best breeders of that stock in England—and we have already stated at different times, the prices of the Herefords purchased by Mr. Clay, and others in Kentucky; but the North Devons of full blood, which have fallen under our notice, were a free and spontaneous offering, to their present owners, by that enlightened and generous farmer, Mr. Coke, of Norfolk. His opinion of their superior qualities, has already been published in the Farmer, but we knew not what would be the cost of such cattle in England. Having heard that a gentleman who owns a cow of this breed, has sent to England to procure some heifers, we solicited such information, as he might have received, as to the prices at which they are selling, to which he has politely replied by the following note:—

MR. JOHN S. SKINNER,

Dear Sir,—In answer to your enquiry respecting an order sent to England, for Devon Cattle, I take pleasure in communicating the result.

Last May I wrote to Messrs. Wm. and Jas. Brown & Co. of Liverpool, to purchase and ship to me, by a vessel in which I had previously engaged accommodation for them, three full bred Devonshire Heifers, provided their cost did not exceed \$70 or 80 each, and on the 4th July, they wrote as follows:

"We should be very glad to carry your wishes into effect, as respects the stock you want; but we are sure it is quite impossible at the prices you quote. The Earl of Sefton is the only person in this neighborhood who has any Devon Cattle, and he bought them at Mr. Child's September sales, at two or three times the price you mention, and none of his Lordship's are to be sold."

If I mistake not, you are in possession of the prices obtained by Mr. Child, at his last September sale for Devon cattle, and which I think will confirm the above letter.

Your's very respectfully,
H. T.

Baltimore County, 11th February, 1823.

From the American Farmer.

MILLET.

Burlington, March 28, 1823.

DEAR SIR—I observe in your 52d number, just received, mention is made of white milletseed, received from Col. Pickering. I am desirous of ascertaining whether this is the same kind, which I have cultivated for several years, of which I send for your inspection a small sample.* In 1821, I had about 11 tons from five

* The Millet sent by Mr. Cox, is of the common kind, and that which is generally referred to in communications which relate to that grain. That from Col. Pickering, was very different, being somewhat larger, rounder, and whiter grain.—Ed. Am. Farmer.

acres, and last year about the same product, from another lot of about 5 acres. I cradled it as wheat, bound it in large sheaves, brought it in the following day—threshed the sheaves at the end of several months, without unbinding them, and obtained about 17 bushels of seed per acre; returned them to the mow for the use of my horses, who ate it as greedily as the best timothy hay. This mode of managing the millet saves much room, as it is very bulky; more seed is saved, than when cut with the scythe as hay—I calculated the product at about 20 bushels per acre, including the seed remaining in the unbound sheaves. In 1821 I had about 30 bushels, weighing 55 lbs. each, ground for my hogs, who ate it as eagerly as Indian meal, given to them at the same time. Both crops were sown about the 6th June, and gathered in the middle of August—they were sown after Indian corn—one year with one ploughing, and the other with two, and harrowed in, without any perceptible difference—the quantity of seed, half a bushel per acre—the average length of the straw, about 5 feet. I have this year sold it at one dollar per bushel for seed, which is much in demand.

Very respectfully, your's,
WM. COXE.

JOHN S. SKINNER, ESQ.

OIL ESSENTIAL, how obtained from Flowers.

Take a clean earthen pipkin or deep dish, in which place a layer of cotton previously steeped in some inodorous oil, as pure Florence oil, or the oil of the bene seed when fresh and tasteless. On this place a layer of the fresh gathered leaves of the rose, tube-rose, sweet pink, jasmine or other odoriferous flower or plant; over this layer place another of cotton which has been steeped in oil as before directed, and thus continue till you have filled the vessel with alternate layers of leaves and cotton, or you have the desired quantity, when cover it up closely, and let it stand for four or five days, when the oil will be found to have fully imbibed the odour of the leaves; then take them out, express the oil carefully from the cotton, and bottle it up for use.

OIL OF BALSAM OF GILEAD, how obtained.

This excellent family oil, which should be kept in every house, is made in the following simple manner. Put loosely into a bottle of any size, as many balm of gilead flowers as will reach to about one third part of its height, then nearly fill up the bottle with good sweet oil, and after shaking it a little occasionally, and letting it infuse a day or two, it is fit for use. It must be very closely stopped, and will then not only keep for years, but be the better for keeping. When it is about half used, the bottle may again be filled up with oil, and well shaken; and, in two or three days, it will be as good as at first. The most alarming cuts and bruises of the skin which are so frequently rendered worse by spirituous balsams, salves, &c. are completely cured in a few days, and sometimes in a few hours, by this incomparable oil.

A remedy for corns on the feet.—Roast a clove of garlick on a live coal, or in hot ashes, apply it to the corn, and fasten it on with a piece of cloth. This must be made use of the moment of going to bed.

ON THE ADVANTAGES OF SYSTEM IN BUSINESS.

BY THE EDITOR.

De Witt, the grand Pensioner of Holland, was for some years at the head of the Department of State, and shewed himself to be one of the most complete financiers the age could boast of. Being asked how he could find time to accomplish all his affairs, his answer was, in substance, that his whole secret lay in "doing one thing at a time." He did that first, which required first to be done, and completed one thing before he began another. In that way he not only finished whatever he undertook, but generally found leisure to compensate for the toils of the day by social converse, and innocent pastimes with his friends in the evening.

Gen. Washington was attached to system in business, and therefore generally successful in whatever he attempted. It has been said that he planned on his morning pillow the course of each day's proceeding; and very rarely deviated from such course, unless compelled by the occurrence of unforeseen, and uncontrollable circumstances. A farmer cannot do better than to imitate the example of those great men. He should, so far as is practicable, have his system of operations—every thing proper to be done on his farm and means of doing it, settled and determined in his own mind a considerable time before hand. His fields should be numbered, and a plan arranged, at least in his head, if not on paper, with regard to his crops, obtaining and preparing seed, necessary ploughings, implements, &c. &c. He should be able to give a reason for every step he takes, and every stroke he strikes, and so husband his strength and resources, as not to lay out a cent's worth of either without an assignable motive, which is at least satisfactory to his own mind. We would not, however, wish a man to be so *bigoted* to any system or plan as not to alter it as reason, observation and experience may dictate. There is some sense in the saying that "a wise man sometimes changes his mind, but a fool never does." What we would solicit is, that every cultivator should form a plan for managing his farm, which may serve as a *general outline* for his proceeding, to be altered or filled up as his circumstances, and increase of agricultural knowledge may dictate. We would, at any rate, advise every farmer before he rises in the morning to decide in the probable business of the day, and he may as well with "his heavy head," press his pillow, or "sit on his heels' antipodes in bed" till noon, as rise ever so early, and whirl about all the forenoon, like a hen with her neck twisted, or a pigeon with its head nipped.

Many a man labors hard, and remains poor because "he does not know how to set himself to work." There's Mr. Simon Shamaway, for example, will turn off work at a great rate, especially when he works by the job, but he requires a guide or overseer as much as a horse that is ploughing among corn needs somebody to ride or lead him. He commonly *works out at day's work*, but has a small farm of his own, in which he "carries on" so badly that he might as well be asleep as undertake to cultivate it. He has a sort of a barn or rather hovel, where he keeps or more properly starves two or three miserable animals every winter; and generally has to *work out*, to procure fodder to keep them alive in the spring. His place for yarding the

poor things, is on the top of a sort of a hump-backed piece of ground, with a brook on one side, and the county road on the other. Every rain carries the essence of the manure into the road or the rill; and every once in a while a violent shower sweeps the premises, floats off every straw, and leaves the whole, at least as clean as his house floor; and this Mr. Shamaway calls *neat farming*! If one undertakes to point out to Mr. S. the absurdity of such management, he is sure to be saluted with a volley of abuse against *book farming*; and "*gentlemen farmers*" who make manure in their closets, and undertake to talk about "*breeds of cattle*," when they can hardly tell a steer from a heifer.

This notable farmer, undertook to set out a small orchard. The piece of ground from which he was to make his fortune by making cider, contained about an acre, of a soil naturally good, but it had become *bound out* as the phrase is, that is to say, it was swarded with a turf as tough as a side of seal leather. Mr. Shamaway bought some apple trees from a neighboring nursery, and gave his note payable in work at hay time. By the bye, he was in a great hurry (as he commonly is) when he set about planting his orchard. He tore up the young trees in the nursery, principally by the aid of a strong arm and an old axe, cutting, slashing, twisting, breaking and bruising all before him. He then carted the mutilated (murdered I was going to say) plants to the place intended for an orchard, let them lay in the sun while he dug little holes for them about 6 or 8 inches square,—crowded in the roots, torne, twisted, doubled, crumpled up in a heap, left both tops and bottoms pretty much without trimming, and jammed, and stamped the earth about them as hard as possible, so as to save the trouble of supporting them by stakes—took no note of the point of compass, but, as often as any way placed the tree, so that the north part of it fronted the south, which of course deranged the whole economy of its vegetation. In this way, he soon got through with his job, and felt as proud, apparently, as Nebuchadnezzar, or any other great conquerer, when he had plucked up a whole nation by the roots, and planted a new colony with its harassed and half-alive population. The trees, however, were soon taken sick—most of them died—the rest never flourished, and our notable mismanager lost his time, his labor, his pay for the trees, and his prospect of an orchard. No wonder then that he not only sighed sorrowfully but groaned bitterly when obliged, the next hay time, to work (I forget how many days) to pay for his apple trees, which proved worse than nothing to him.

We have given the above as one specimen out of fifty which might be mentioned, of Mr. Shamaway's ill-directed activity, and often worse than useless labors. He is, however, a man of *science, in his way*; and knows as much as the common run of magistrates, who used to hang old women for witches. He makes the *Moon* his chief counsellor, and watches all her motions with as much solicitude as if his all depended on her waxing and waning. The *Signs* in the almanac are also very important matters with this great calculator. His seeds must be planted in such a time in the moon, or they will all run to stalk and vine; his hogs must be killed when the moon is on the *increase*, or his pork will *decrease* unconscionably when boiled;

his bushes must be cut in the *old of the moon* in August, when the sign is in the heart, because when the sign is in the heart, the bushes will lay it to heart if their heads are cut off. He will undertake nothing new on Friday, because that is an *unlucky day*, and his wife would more think of churning or making soap on Friday, than she would (good woman) of dancir hornpipes on Sunday. When he sees the new moon over his left shoulder, it is "a sartai sign," he says "something or 'nother is a goin to happen; I minded it that time when the old sow got into the tater-yard, the old cow broke her leg in the pole-bridge, and Jemmy like died of the measles." He thus lives in continual apprehension, watching the moon—his only counsellor,—and poring over signs in the almanac—which compose his whole agricultural library,—gathering his harvest of misfortunes before hand, and suffering as much or more from apprehension than from the sad realities of life. This man has some system, to be sure, but it is founded on things which have no foundation and what little knowledge he possesses is like the glimmering of a jack-o-lantern which points out and faintly illuminates the road to ruin.

From the National (Vermont) Standard.

LEGAL INTELLIGENCE.

The adjourned session of the Supreme Court in this county closed on the 5th inst. The laudable exertions of our present judges to contract the course of litigation, and clear the docket of long standing suits, has finally succeeded. Several adjudications of considerable consequence have been made. We shall take the liberty to notice the case of Hagar vs. Woodbridge, as a pre-eminent importance. This was an action commenced for the taking of stage horses, &c. which the plaintiff claimed under an absolute and unconditional bill of sale from Campbell the original proprietor. This sale was acknowledged to be founded upon a fair and valuable consideration. The possession of the property was considered as unchanged, although Campbell continued to run the horses upon the line under a lease of the same, executed simultaneously with the bill of sale, by which a certain rent per annum was stipulated to be paid to the plaintiff. The defendant claimed the property by virtue of the levy of an execution against said Campbell subsequent to the sale above mentioned. The case was argued on the part of the plaintiff at length, and with great legal ability. But the Court decided under all the circumstances that the sale to the plaintiff was fraudulent and void. They occupied the grounds taken in the case of Edwards vs. Harbin, decided in England, and Hamilton vs. Russel, decided by the Supreme Court of the United States, and recognized the broad principle that every bill of sale of personal chattels which are susceptible of immediate delivery unaccompanied by possession, was *per se* fraudulent against creditors, and that no proof of valuable consideration passing from the vendee could change the legal character of the transaction. They observed that the principle they had adopted afforded a definite and necessary rule to detect deceit in the transfer of personal chattels, and that to limit its operations by an investigation of the circumstances of each particular case would constitute a *felo de se*, and destroy its utility altogether. This decision was not however unanimous.

NEW ENGLAND FARMER.

SATURDAY, APRIL 19, 1823.

The Farmer's and Gardener's Remembrancer.

APRIL.

PLANTING TREES.—After your ground has been properly trenched, spaded or ploughed, till it is made perfectly fine and mellow, you may proceed, in the most judicious manner, and according to the best authorities, to plant your fruit trees, forest trees, &c. The tree to be planted should be as young as circumstances admit. Mr. Ficol, an English writer of reputation, states that generally trees three, or at most four years old from the seed, and which are from 2 to 24 inches high, will, in any situation or soil, outgrow those of any size under eight or ten feet, within the seventh year.* Mr. Cobbett says "If the tree be for an orchard it must be five or six feet high, unless cattle are to be kept out for two or three years. And, in this case, the head of the tree must be pruned short, to prevent it from swaying about from the force of the wind. Even when pruned, it will be exposed to be loosened by this cause, and must be kept steady by a stake; but it must not be fastened to a stake, until rain has come to settle the ground; for, such fastening would prevent it from sinking with the earth. The earth would sink from it, and leave cavities about the roots. When the trees are short they will require no stakes. They may be planted the second year after budding, and the first after grafting, and these are the best times."†

A great difference of opinion appears to exist respecting the time of the year best adapted to planting fruit trees. In Pennsylvania, the spring of the year is preferred. Ebenezer Preble, Esq., in a communication to the Mass. Agr. Society, says that he prefers autumn to spring for planting apple trees, as the ground will settle round the roots previous to the frost setting in, and be prepared to shoot in the spring, aided by the rains which prevail at that season. If planted in spring, he observes, the drought and heat of summer will injure, if not destroy them, before the roots find their place. He transplanted them as soon as the leaves fell in autumn, and farmers have generally more leisure at that time than in the spring.‡ Mr. McMahon says, "as the seasons for planting out fruit and other trees, differ so much in the climates of the U. States, and even in the same place, in different seasons, the only sure guide is, to plant all kinds of trees as soon as their buds begin to swell, or rather a little before."§ Mr. Cobbett says, "the season of planting fruit trees is when the leaves become yellow, or as early as possible in the spring."

When your ground is prepared, take up the tree with care without wrenching or tearing it. "Prune the roots with a sharp knife so as to leave none more than a foot long; and if any have been torn off nearer to the stem, prune the part, so that no bruises or ragged parts remain. Cut off all the fibres close to the roots; for they never live, and they mould, and do great injury. If cut off their place is supplied

by other fibres more quickly. Dig the hole to plant in three times as wide, and six inches deeper than the roots actually need, as mere room. And now, besides the fine earth generally, have some good mould sifted. Lay some of this six inches deep at the bottom of the hole. Place the roots upon this in their natural order, and hold the tree perfectly upright, while you put more sifted earth on the roots. Sway the tree backward and forward a little, and give it a gentle lift and shake, so that the earth may find its way amongst the roots, and leave not the smallest cavity. Every root should be closely touched by the earth in every part. When you have covered all the roots with the sifted earth, and have seen that your tree stands just as high with regard to the level of the ground as it did in the place where it before stood, allowing about three inches for sinking, fill up the rest of the hole with the common earth of the plat, and when you have about half filled it, tread the earth that you put in, but not very hard. Put on the rest of the earth, and leave the surface perfectly smooth. Do not water by any means. Water, poured on, in this case, sinks rapidly down, and makes cavities amongst the roots; lets in air; mould and canker follow; and great injury is done."*

"If you plant in the spring, let it be as early as the ground will bear moving; only bear in mind, that the ground must be dry at top when you plant. In this, the new roots will strike out almost immediately; and as soon as the buds begin to swell shorten the head of the tree. After a spring planting it may be necessary to guard against drought; and the best protection is the laying of small stones of any sort round the tree, so as to cover the area of a circle of three feet in diameter, of which circle the stem of the tree is the centre. This will keep the ground cooler than any thing else you can put upon it.†

Mr. Forsyth says, "In transplanting trees, especially large ones, I consider it to be of great consequence that they be placed in the same position (that is, having the same parts facing the same points of compass) as formerly. If you take notice when a tree is cut down, you will find that three parts in four of the growth are on the north side."

With regard to the distance of each other, which apple trees should be planted, a variety of opinions have been entertained. Miller, an experienced English horticulturist, recommends, when the soil is good, fifty or sixty feet; and where the soil is not so good, forty feet. Lawson, another English writer, observes that in a good soil, and under proper management, apple trees will, in forty or fifty years, spread twelve yards on every side; and the adjoining tree spreading as much, gives twenty-four yards, or seventy-two feet, and the roots will extend still

* "The holes ought, for various reasons, to be made previous to the day of planting. If the season of planting be spring, and the ground and the weather be dry, the holes should be watered the evening before the day of planting, by throwing two or three pails full of water into each; a new but eligible practice."—Thacher's Orchardist, p. 52.

† It has been found by experience to be a good practice, in a light soil, to mix small stones with the loam about the root of the tree, in returning the earth into the hole. These stones help keep the roots firm in their places in high winds, and prevent the earth about them from being loosened.

further. He therefore recommends that apple trees be set at the distance of eighty feet from each other. Dr. Deane observed that trees in that cold and cloudy region [England] need every possible exposure to the sun and air. It should be considered at the time of planting to what size the trees are likely to grow. And they should be set so far asunder, that their limbs will not be likely to interfere when they arrive at their full growth. In a soil that suits them best they will become largest. Twenty five feet may be the right distance in some; but thirty-five feet will not be too much in the best or even forty."* We believe that the distance most generally recommended is forty feet in all directions. It does not answer a good purpose to plant small trees in the midst of full grown trees, nor to plant young trees where old ones have lately grown. An orchard should have a northern exposure, and it is said that the rows of trees in an orchard ought to incline to a point of compass towards the east, as such an inclination gives the trees the greatest benefit from the morning sun.

ON THE CHOICE OF TREES FOR PLANTING.—"It has been a received opinion, that the soil for a nursery should not be made rich, as the plants when removed to a more fertile soil, will flourish more luxuriantly; but late observation has decided that the reverse of this will be found correct. Where the soil is poor and lean, trees, in every stage of growth, are observed to be weak and stunted; while those reared in a good mellow soil always assume a free growth, and advance with strength and vigor."†

LOOK TO YOUR SHEEP AND LAMBS.—"See that the lambs can come at the teat; and if not, clip away the wool of the ewes which hinders them, as also all tags of wool on the udders of the ewes which the lambs are liable to take hold of instead of the teats.

"If a ewe refuse to let her lamb suck, she and her lamb should be shut up together in a close place till she grow fond of him. For this purpose, some say that surprising a sheep with a dog will be effectual.

"Care should be taken to feed the ewes plentifully after yearning, and with some juicy kind of food [potatoes are excellent,] so that the lambs may not fail of having plenty of milk. The rams may be gelded at any time from one to three weeks old, if they appear to be well and strong.

"They should not be weaned till they are six weeks, or two months old. At this age they should be taken from the ewes, and have the best pasture during the first fortnight; by the end of which time they will be so naturalized to living wholly upon grass that they may be turned into a poorer pasture.

"The worst woolled lambs, and bad colored ones, and those that are very small, should be destined to the knife, and not weaned."‡

"Should any deformed or lame lambs be found in your flock, or should any one be killed by accident, strip off the skin from such lamb, and cover with it either a twin lamb, or the lamb of a young ewe, which does not appear to be a good nurse, and shutting up the ewe that has lost her lamb, she will generally take it as her own. Should she refuse, she must be

* Practical Farmer, p. 150, 153; see, likewise, Mr. Lowell's observations on planting Forest Trees, published in New England Farmer, No. 8, p. 59.

† American Gardener, par. 237, 238.

‡ Mass. Agricultural Repository, vol. iv, p. 84.

§ Gardener's Calendar, page 214.

* Deane's N. E. Farmer, p. 302; Wells & Lilly's ed.

† Thacher's Orchardist, p. 30.

‡ Deane's N. E. Farmer, p. 239; Wells & Lilly's ed.

held for a day or two, when she will adopt it. This is a common practice in Spain, where even half the lambs are killed, and two ewes given to each lamb. One of my neighbors tried it last spring, upon my recommendation, with success.*

ONIONS.—"A spot of ground should be chosen for onions, which is moist and sandy; because they require much heat, and a considerable degree of moisture. A low situation, where the sand has been washed down from a neighboring hill, is very proper for them. And if it be the wash of a sandy road so much the better. The most suitable manures are old rotten cow and horse dung mixed, ashes, but especially soot. A small quantity of ashes or sand, or both, should be spread over them after sowing, especially if the soil be not sandy. And it is not amiss to roll the ground after sowing; or harden the surface with the back of a shovel.

"I have many years cultivated them on the same spot; and have never found the land at all impoverished by them; but on the contrary, my crops are better now than formerly. But the manuring is yearly repeated; and must not be laid far below the surface.

"The ground should be dug or ploughed in autumn, not very deep; and then made very fine in the spring, and all the grass roots, and of weeds taken out, then laid in beds four feet wide. Four rows of holes are made in a bed, the rows ten inches apart, and the holes in the rows ten. About half a dozen seeds are put in a hole, or more if there be any danger of their not coming up well, and buried an inch under the surface. Though the largest onions are those that grow singly, some inches apart, those that are more crowded produce large crops. And the middle sized onions are better for eating than the largest."†

"The same writer expresses an opinion that the drill method of sowing onions, may be preferable; and we believe it is generally preferred.

Mr. Cobbett says, "Let the ground be rich, but not from fresh dung. Make the ground very fine; make the rows a foot apart, and scatter thinly along a drill two inches deep. Then fill in the drills; and then press the earth down upon the seed by treading the ground all over. Then give the ground a very slight smoothing over with a rake.

"For seed, pick out the finest onions, and plant them out in rich land in the spring. To grow this seed upon a large scale, plough the land into four feet ridges, lay plenty of dung along the furrows, plough the ground back over the dung, flatten the top of the ridge a little, and put along, on the top of the ridge, two rows of onions, the rows seven inches apart, and the onions seven inches apart in the rows."‡

CUCUMBER.—To give particular and minute directions for cultivating cucumbers would seem rather a work of supererogation. We shall, therefore, content ourselves with the following quotation which may induce the inexperienced gardener to avoid a proceeding, which is much more common than proper.

"I have one observation to make upon the cultivation of cucumbers, melons of all sorts, and that of all the pumpkin and squash tribe;

and that is, that it is a great error to sow them too thick. One plant in a hill is enough; and I would put two into a pot, merely as a bar against accidents. One will bring more weight of fruit than two (if standing near each other,) two more than three, and so on, till you come to fifty in a square foot; and then you will have no fruit at all! Let any one make the experiment, and he will find this observation mathematically true. When cucumbers are left eight or ten plants in a hill, they never shoot strongly. Their vines are poor and weak. The leaves become yellow; and, if they bear at all, it is poor tasteless fruit that they produce. Their bearing is over in a few weeks. Whereas, a single plant, in the same space will send its fine green vines all around it to a great distance, and, if no fruit be left to ripen, will keep bearing till the white frosts come in the fall.—The roots of a cucumber will go ten feet, in time earth, in every direction. Judge, then, how ten plants, standing close to one another, must produce mutual starvation."

COL. JACQUES' CATTLE.

On the 14th inst. some fine imported Cattle, belonging to Col. Jacques, of Charlestown, were exhibited in State-street, and it was allowed by all competent judges that they were the best bred foreigners that ever appeared among us. They were—the English bull Cælebs, and cow Flora, together with a very promising family, owned and bred by Col. Jacques, consisting of the Daisy, 2 1-2 years old; the Eclipse, 21 months; the Countess, 10 months; and Jupiter, 7 months.—Cælebs and Flora were purchased by Cornelius Coolidge, Esq. in England, and imported to Boston in 1818. Eclipse had been purchased previous to this exhibition for the Agricultural Society of Montreal, and the above mentioned was his last appearance in this part of the country. At 12 months of age this bull weighed 1060, at 15 months and 7 days, at Brighton Cattle Show, 1243, and at 21 months and 11 days 1502 pounds. At each time of weighing he was only in what is called common store keep. He has, however, never been particularly valued for his weight, but for his perfect symmetry, and being purely descended from the best stock in Great Britain. The Society of Montreal purchased him for \$500. He had previously won a premium of the Massachusetts Agricultural Society of \$40, and been admitted to a cow for \$10, making, in the whole, \$550, received for a bull about 21 months old! We are informed that Mr. Youl, an Englishman, the agent of the Montreal Agricultural Society in this transaction, and who was professionally acquainted with the best English breeds of cattle, spoke in high terms of Col. Jacques' stock, as scarcely to be excelled in Great Britain. We intend, hereafter, to take further notice of this breed of cattle, and to point out some of the advantages which may be expected to accrue from their introduction into the United States.

Pope's Thrashing Machine.—We have published in No. 13, p. 99, of our paper, the opinion of the Committee of the Massachusetts Agricultural Society in favor of Mr. Pope's invention. Likewise in No. 35, p. 276, the report of a Committee of the Pennsylvania Agricultural Society, recommending the same implement. The last No. of the American Farmer contains a cut of the machine, with recommendations of a number of eminent agriculturists in Massachusetts and Pennsylvania. From these it appears, that with hand power it is capable of thrashing five dozen sheaves of wheat in an hour, and that the same machine, with the applica-

tion of horse power, thrashes ten dozen an hour. That it thrashes much cleaner, and more expeditiously than is usually done by the flail or by horses. The har machine can be constructed at little expense; the materials cost \$13, and it can be made by a good workman in twelve days. Col. Powell, of Philadelphia, says, "It was exhibited to our Society—tried by the committee, and has been in operation before several of our directors and many other farmers (not Dilletant nor "book farmers," who are not less satisfied than myself, that since it has been adapted to the power of one horse, it is, by its simplicity and cheapness, strength and force, better suited to our purposes than any thrashing machine which we have seen. It costs \$50, occupies not more room than a fan, thrashes 120 sheaves in an hour, and can be carried in a cart or taken to pieces at will."

Flax Machine.—A machine for dressing flax has been invented by Mr. Goodrell, of New York, and is now owned by Samuel Swartout, Esq. of Hoboken. A New York paper says that one man, with this machine, can prepare or clean more flax in one day than fifteen persons with the hackle; and the flax, thus dressed, is worth, and will command three cents more a pound in the market by the quantity.

Uncommon, but useful objects of Premiums.

In the list of premiums offered by the Executive Committee of the Hampshire, Franklin and Hampden Agricultural Society, we perceive the following, and are gratified to find the attention of New England farmers directed to subjects of this nature.

For the barn to be hereafter built, which shall be best calculated for the usual purposes of a barn, and especially for making manure by saving the urine of beasts,	\$100
For the second best do. do.	75
For the third best do. do.	50
For the best nursery of white oak, or white ash plants, raised from the seed, not less than three years old at the time the premium is adjudged, and occupying not less than an acre of land	100
For the second best do. do.	75
For the third best do. do.	50

In order to give every farmer an opportunity to contend for the ploughing prizes, the Executive Committee have thought fit to adopt the following arrangement: Four oxen and fifty minutes time shall be allowed for a quarter of an acre, reference to be had to the quality of the ploughing, only, if performed within the time.

Growth of Wood.—It has been ascertained (says an English paper,) that wood increases in the following proportion:—1st year as 1—2d as 4—3d as 9—4th as 15—5th as 22—6th as 30—7th as 40—8th as 54—9th as 70—10th as 92. From this it is concluded, that wood ought never to be cut till in the 10th year of its growth.

It is stated in a Liverpool Gazette, that any person who may swallow a pin, or the bone of a fish, will find almost instant relief by taking four grains of tartar emetic dissolved in warm water, and immediately after the whites of six eggs. The coagulated mass will not remain on the stomach more than two or three minutes, and in its ascent, it is said, will bring up the offending substance.

MEDICAL.

The use of Croton Oil, a powerful purgative, has been introduced in India. It is obtained from the seeds of the Croton Tiglium or Grana Moluca. One drop is the usual dose for a grown person, which, according to circumstances, is increased to two or three. It operates in from half an hour to three hours. It is sometimes taken in pills. One drop is equal to a drachm of jalap, or six grains of calomel, and an ounce of Epsom salts. It is sometimes called Narvallum Cotta.

* Livingston's Essay on Sheep.

† Dean's N. E. Farmer; Wells & Lilly's edition.

‡ American Gardener. par. 238.

Agricultural Societies.—There has been an attempt made in the Legislature of New York to repeal the laws of that State for the promotion of agriculture, and a bill for that purpose passed the House of Assembly, but the Senate refused to concur and the bill failed. The Board of Agriculture presented an able remonstrance on the subject, which is supposed to have produced some effect. A letter is given in this memorial, from M. Le Ray, De Chaumont, from which it appears that the Royal and Central Society of Agriculture of France has received the first number of the memoirs of the New York State Society, nominated a committee to examine it, and heard, with a lively interest and great satisfaction, the report made by it. In return M. Lechaud has sent, by order of the French Society, to the New York Society, 30 volumes, forming the whole of their Memoirs.

FOREIGN.

France and Spain.—These two nations are putting their armor, and assuming their hostile attitudes. It is a wonder if the other powers of Europe long remain merely lookers on, if the combat commences. Portugal, it is said, has resolved to act a part in the drama, and Great Britain, as an ally of Portugal, will probably become one of the characters.

Great Britain vs. Pirates.—Mr. Canning, it is affirmed, has announced in Parliament, that orders have been given, with the consent of Spain, to land troops in Cuba, for the destruction of pirates.

Paris accounts have been received to the 4th of March, and furnish details of discord in the Chamber of Deputies. M. Manuel, an opposition member, after being repeatedly interrupted, and cried down by the majority party, was at length expelled. Refusing to obey the mandate of expulsion, he was at length ordered out by force, the National Guards having been led in to carry into effect the decree of the Assembly. The people without showed much excitement in consequence of such cavalier treatment of one of their representatives, but their anger appears to have evaporated in clamor and menaces.

Spain.—Intelligence has been received from Cadiz late as the 7th March. The commencement of hostilities was hourly expected. The king was confined to his bed by indisposition, being threatened with an attack of the gout. The queen was said to be affected with convulsions. The Spanish Cabinet have declined to proffer mediation of Great Britain, which had for basis some modification of their constitution, which might comport with the views in France. Spain is very where tranquil, and it is affirmed that danger is had the effect of uniting the people. Sir Robert Wilson has been appointed to the command of the Portuguese division, to operate against the French, in the event of their entering Spain.

Young Napoleon.—One of the London papers lately received at New-York, speaks of a rumor that General Demand, one of Bonaparte's best generals, is occupied at Barcelona, in Spain, is raising a corps of 10,000 men, composed of Frenchmen disaffected to the present government of France, whose object is, on the breaking out of war between France and Spain, to march to France under the tri-colored flag, with the view of exciting a revolution in that country, driving out the Bourbons, and placing young Napoleon on the throne of his father.

DOMESTIC.

Votes for Governor.—Returns have been received from 279 towns, which give Enstis 33397—Otis 29344. Out 25 towns remain to be heard from.

The election of city officers took place last Monday. In Josiah Quincy was chosen Mayor, and the following gentlemen Aldermen, viz:—David W. Child, Joseph H. Dorr, Enoch Patterson, Stephen Hooper, John Benjamin, Daniel Baxter, Caleb Eddy, and Geo. Tierne.

The Hon. Judge Jackson has resigned the office of Justice of the Supreme Judicial Court, on account of the ill state of his health.

Hon. Josiah Quincy has resigned the office of Judge of the Municipal Court of this city.

Eclipse of the Sun.—It is stated in the Harper's Ferry Free Press, that, on the 27th June, 1824, there will be an eclipse of the Sun, to commence at 34 minutes after four, and continue 2 hours 55 minutes. Total darkness at 56 minutes after 5. There will not be another total eclipse of the Sun, visible in the U. S. until the 20th July, 1860.

A duel was fought on the 5th inst. near Philadelphia, over the Delaware line, between Gen. Cadwallader and Dr. Pattison, of Baltimore. The former was wounded in the wrist. The parties stood 9 paces or about 27 feet apart. The Gen.'s pistol was not discharged, as he was in the act of taking deliberate aim when the pistol of the Doctor was fired. Apprehensions are felt that a lock jaw will take place, as the arm is much swelled, and the ball is not extracted.

WASHINGTON, March 26.

Prairie Dogs.—The Rev. Samuel Giddings, of St. Louis, who took a tour among the Western Indians last spring and summer, gives the following account, in his journal, of these singular animals:

"June 14, 1822.—We passed a village of barking squirrels, or prairie dogs. They have the appearance of the grey squirrel in color and shape, but are three times as large. Their noise exactly resembles that of the smaller kind of dogs. They burrow in the earth, and are never seen far from their habitation. They live on grass and herbage; and not a spear of grass is suffered to grow within the bounds of their village. On the first appearance of danger, they flee to the mouth of their burrow, and when it comes near, they enter, and can rarely be driven out by smoke or water. Thousands dwell in the same village, forming a little community. Their burrows are from ten to twenty feet apart, with a mound of dirt at the entrance, of from one to two feet in height, which serves as a watch tower. On the approach of danger, they raise an incessant barking. We were much annoyed during the night by the barking of these animals."

Astronomical.—A beautiful Orrery or Planetarium, invented by Mr. Hart, principal of the Mechanics' School, in this city, is deposited for exhibition at the bookstore of Messrs. Bliss & White, in Broadway. Instruments of this kind are extremely useful, and indeed indispensably necessary, in illustrating the movements of the planetary world. Orreries and celestial globes are in the science of astronomy what maps, charts, and terrestrial globes are in geography. In either study the scholar's ideas must be confused and imperfect without the use of these artificial aids. The most beautiful Orrery we have ever seen was at Mr. Vogel's, opposite Washington Hall. It was connected with a time-piece, and the revolutions of the planets and their secondaries accurately measured by the machinery. Mr. Hart's invention is said to have been approved and adopted by some of the instructors in this city.

New-York Statesman.

PROPOSALS,

FOR PUBLISHING A VOLUME ENTITLED

COMPENDIUM OF AGRICULTURE, or the Farmer's Guide in the most essential parts of Husbandry and Gardening; compiled from the best American and European publications, and the unwritten opinions of experienced cultivators.

Now is the time when agriculture is making more rapid strides towards perfection, than appear to have been for ages. This may be attributed in some measure to the Agricultural Societies established in Switzerland, France, Britain and America. But we know of no work accessible by farmers in general, that contains a good concentrated account of these valuable modern improvements. The work proposed, therefore, has occupied the attention of the Editors a considerable time, and still demands the utmost assiduity in collating and condensing for the press—so that none of the recent improvements in rural economy should be omitted that might render it interesting and serviceable to the farmers of this country.

The Editors, (concerned themselves in rural affairs) fully apprized of the importance of agriculture, the first and most indispensable of arts, are determined to spare no pains to render it a really useful book to all who know how to appreciate such works.

The volume, to contain about 300 pages, 12 mo. at one dollar in boards, will be put to press when the number of subscribers shall be sufficient to encourage printing.

Those persons who have obtained subscribers for the above work, are requested to leave their names at the office of the Manufacturers' and Farmers' Journal, by the first of July next. Providence, April, 1823.

ENGLISH BULL.

FOR sale or to let, an IMPORTED BULL of 3 1-2 years old, of the Normandy breed (similar to the Alderney, only rather larger sized) and considered the richest Milkers in Europe. This animal is large, and very finely shaped, a brindle color and perfectly gentle. Price, One Hundred and Fifty Dollars; or if well placed, will be let on equal shares for two years.

Also—**TWO BULL CALVES**, from first rate Milk-cows, and a **FULL BLOOD ALDERNEY BULL**, owned by the Massachusetts Agricultural Society—will be sold for Fifteen Dollars each, if taken away immediately.

Apply to JOHN PRINCE, at his Farm on Jamaica Plain. Roxbury, 19th April, 1823.

PRICES OF COUNTRY PRODUCE, &c.

[Revised and corrected every Friday.]

		FROM	TO
		D. C.	D. C.
ASHES, pot, 1st qual. . . .	ton.	170 00	173 00
" pearl do.		160 00	162 50
BEANS, white,	bush	1 00	1 10
BEEF, mess, 200 cwt. . . .	bbl.	9 50	
" cargo, No. 1.		8 00	8 50
" No. 2.		6 50	7 00
BUTTER, inspect. 1st qual. .	lb.	13	14
" 2d qual.		10	11
" small kegs, family, .		15	16
CHEESE, new milk		7	8
FLAX		8	9
FLAX SEED	bush	25	30
FLOUR, Baltimore, superfine,	bbl.	7 50	7 62
" Genesee		7 50	7 75
" Rye, best		4 50	5 00
GRAIN, Rye	bush	80	83
" Corn		65	68
" Barley		63	65
" Oats		43	45
HOGS' LARD, 1st sort . . .	lb.	9	
HOPS, No. 1,		10	12
LIME,	cask	1 25	1 50
OIL, Linseed, American . .	gal.	65	00
PLASTER PARIS	ton.	3 00	3 25
PORK, Navy Mess	bbl.	12 00	12 50
" Bone Middlings . . .		14 00	14 50
" Cargo, No. 1,		12 00	12 50
" Cargo, No. 2,		11 00	11 50
SEEDS, Herd's Grass . . .	bush	2 25	2 50
" Clover	lb.	8	9
WOOL, Merino, full blood, washed		55	65
" do. do. unwashed . .		45	48
" do. 3-4 washed . . .		45	55
" do. 1-2 do.		40	45
" Native		38	40
" Pulled, Lamb's, 1st sort		55	60
" do. Spinning, 1st sort		50	55

PROVISION MARKET.

BEEF, best pieces	lb.	8	10
PORK, fresh		6	8
VEAL,		6	8
MUTTON,		5	7
POULTRY,		10	12
BUTTER, keg & tub		15	16
" lump, best		16	18
EGGS,	doz.	10	12
MEAL, Rye,	bush	85	90
" Indian,		78	80
POTATOES,		37	
CIDER, liquor,	bbl.	1 50	
HAY, best,	ton.	20 00	22 00

On the sensibility of the Brute Creation to the various changes of the weather.

W^HEN weather seldom hurts the most unwise,
So plain the signs, such prophets are the skies :
The wary *Crane* foresees it first, and sails
Above the storm, and leaves the hollow vales :
The *Cow* looks up, and from afar can find
The change of heaven, and snuffs it in the wind.
The *Swallow* skims the river's watery face,
The *Frogs* renew the croakings of their race ;
The careful *Ant* her secret cell forsakes,
And drags her eggs along the narrow tracks ;
Huge flocks of rising *Rooks* forsake their food,
And crying, seek the shelter of the wood.
Besides, the several sorts of *Wat'ry fowls*,
That swim the seas or haunt the standing pools,
Then lave their backs with sprinkling dews in vain,
And stem the stream to meet the promis'd rain.
The *Crow* with clam'rous cries the show'r demands,
And single stalks along the desert sands.

VIRGIL.

GEN. WASHINGTON.

The following authentic letter from Gen. Washington, to Dr. Cochran, Director General of the American military hospitals during the revolutionary war, is extracted from the number just published of the London Magazine.

WEST-POINT, Aug 16, 1779.

Dear Doctor—I have asked Mrs. Cochran and Mrs. Livingston to dine with me tomorrow ; but ought I not to apprise them of their fare ? *As I hate deception, even where imagination is concerned, I will.*

It is needless to premise that my table is large enough to hold the ladies—of this they had ocular proof yesterday. To say how it is usually covered is rather more essential ; and this shall be the purport of my letter.

Since my arrival at this happy spot, we have had an ham, sometimes a shoulder of bacon, to grace the head of the table—a piece of roast beef adorns the foot, and a small dish of greens or beans (almost imperceptible) decorates the centre. When the cook has a mind to cut a figure (and this I presume he will attempt to do to-morrow,) we have two beef-steak pies or dishes of crabs in addition, one on each side of the centre dish, dividing the space, and reducing the distance between dish and dish to about six feet, which, without them, would be nearly twelve apart. Of late, he has had the surprising luck to discover that apples will make pies, and it's a question if, amidst the violence of his efforts, we do not get one of apples, instead of having both of beef.

If the ladies can put up with such entertainment, and submit to partake of it on plates, once tin, but now iron, (not become so by the labor of scouring,) I shall be happy to see them.

I am, dear sir, your most obedient servant,
GEO. WASHINGTON.

To Dr. JOHN COCHRAN.

Extract of a letter from an officer in the British army to his brother, at present in the city of Pittsburg, Penn. dated Secundrabad, near Golconda, East Indies.

"I arrived here after a march of five hundred miles through a delightful country. We encamped each day on the march, and were three months from Madras to this place. It would astonish you to see an army on its march through this country. The elephants are like

moving mountains ; but they are the most docile of animals. A young one, about two years old, following its dam, being full of play, happened to throw down a child. The dam turned round, took up the child with her trunk, and having put it in a place of safety, beat the young one most severely.

"The pagodas, or places of worship, are some of them astonishing structures, and are from one to ten stories high. The sculpture of some of them would do honor to our modern artists. The natives are divided into castes. Some castes worship the elephant, others the cow, the sun, the fire, &c. but they all believe in a future state."—*Genius of Liberty.*

The Dog of Pera.—The house of a Greek interpreter at Pera, in the suburbs of Constantinople, being on fire, he had saved nearly all his property by the assistance of a few Janissaries, but more anxious, without doubt, for his money than for his family, he had forgotten an infant in its cradle. No one could enter the house, for every thing was on fire. The father, reduced to despair, believed that his child had perished ; when, of a sudden, a large dog, which he kept to guard his dwelling, emerged from the flames, bearing the innocent little creature suspended by its linen from his mouth. They reached towards the dog to take the child, but he would not abandon it, and eluding their efforts, he ran through a number of streets, until he reached the house of an intimate friend of his master, where he deposited the precious burden, and remained till the door was opened to receive it.

Can you imagine what was the reward of this faithful and generous servant ? The owner strove to recompense him—but the mode that he devised was equally absurd, afflicting, and incredible. With a barbarous gratitude he killed the dog, and had him served up at his table at a splendid feast which he gave on the occasion.

"My dog," said the Turk, "has behaved too well to be the food of worms. Men only deserve to eat him. And as for you," looking at his friends and relations, "you cannot but gain by it—it will render you more benevolent."

There is in this attested fact, more of barbarism than of feeling ;—it would have been infinitely better to have caressed and taken care of his dog until extreme age, than thus to devour him like wolves. In India, a dog, after such an act, would perhaps have obtained a temple. This would have been, no doubt, ridiculous, but it is better to err by being over grateful, than to sin by the excess of ingratitude.

Mr. Curran was once asked what an Irish gentleman, just arrived in England, could mean by perpetually putting out his tongue. "I suppose," replied the wit, "he's trying to catch the English accent."

NEW GARDEN SEEDS.

FOR sale, by GEO. MURDOCK, No. 14, Market Square, a great variety of English and American GARDEN SEEDS, of the last year's growth ; consisting of early Frame, Hotspur and Charlton Pease ; early and late Cabbage ; early and late Cauliflower ; Sweet Marjoram, Thyme, &c. with every other Seed suitable for a Kitchen Garden. Also, 40 lbs. Mangel Wurtzel or Scarcity—100 lbs. Ruta Baga or Swedish Turnip—a quantity of Armack or Carrot. March 29.—6w

PROPOSALS,

FOR PUBLISHING BY SUBSCRIPTION A COLLECTION OF

FUGITIVE POEMS.

MORAL, SENTIMENTAL AND SATIRICAL.

BY SELLECK OSBORN.

THE author of the articles which are to compose this volume, never wrote with a view to fame or profit ; he merely obeyed the impulse of the moment. Of those which were sent to the press he seldom retained copies ; and they were usually forgotten by him until recalled to his mind by public prints, which have often gratified him by flattering notice, but which have also frequently annoyed him by mutilations which were extremely mortifying. This last circumstance (beside private solicitations and other motives) has induced him to collect, with considerable pains, his scattered effusions, and to add some unpublished pieces ; which altogether will have at least the merit of being genuine ; and perhaps that of inculcating to the best of the author's capacity, good principles and amiable sentiments—excluding all matters relative to party politics. Disinterestedness is not pretended : It is confessed that a liberal patronage would be very acceptable, on various accounts. The author confides in the zeal of his friends throughout the Union, for the promotion of his interest in this case.

The volume will be neatly printed, in a duodecimo form of 200 pages, on handsome paper, with type entirely new, and well bound in boards, at one dollar payable on delivery.

A commission of 12 per cent will be allowed agents on all returns made.

Gentlemen holding subscription papers will please return them by the first of June next, or as soon as reasonable efforts have been made to obtain subscribers.

Editors of newspapers will oblige the author by publishing or noticing these proposals, and receiving subscriptions.

Communications to be addressed to the author, Merchants' Hall, Boston, Mass. April 5.

THE STATISTICAL ACCOUNT OF SCOTLAND.

DRAWN up from the communications of the Ministers of the different parishes, by Sir JOHN SIMON CLAIR, Bart. 21 vols. 8 vo. complete, only one copy will be sold at the very reasonable price of \$50. Among 58 heads of inquiry addressed to each minister (the whole being too numerous for an advertiser as a guide for their reports, are—Name, and its original description of the soil and surface ; climate and diseases ; instances of longevity ; mode of cultivation implements of husbandry ; manures ; seed time a harvest ; quantity and value of each species of crop ; total value of the whole produce of the district ; wages and price of labor ; manufactures ; man of kelp ; lices ; roads and bridges ; state of the Church, stipend &c. number of the poor ; parochial funds and the management of them ; schools, and scholars ; number of souls ; cattle, nature and value ; sheep do. ; swine do. coal and fuel ; antiquities ; character of the people ; advantages and disadvantages ; means by which the situation could be meliorated. "No publication of equal information and curiosity has appeared in Britain since Doomsday Book ; and that, from the ample and authentic facts which it records it must be resorted to by every future Statesman, Philosopher and Divine, as the best basis that has ever yet appeared for political speculation."

Also—The Complete Grazier, &c. 1 vol. 8 vo. American Orchardist—Cully on Live Stock—Farmer's Assistant—Farmer's Manual—American Gardener—Villa Garden Directory—Cox on Fruit Trees, &c. &c. For sale by R. P. & C. WILLIAMS, Cornhill Square Boston. April 12.

TERMS OF THE FARMER.

Published every Saturday, at THREE DOLLARS per annum, payable at the end of the year—but those who pay within sixty days from the time of subscription will be entitled to a deduction of FIFTY CENTS.

No paper will be discontinued (unless at the discretion of the Publisher) until arrearages are paid.

Agents who procure seven subscribers, and become responsible for the payment, will be entitled to copy gratis, and in the same proportion for a larger number.

NEW ENGLAND FARMER.

PUBLISHED BY THOMAS W. SHEPARD, ROGERS' BUILDINGS, CONGRESS STREET, (FOURTH DOOR FROM STATE STREET.)

VOL. I.

BOSTON, SATURDAY, APRIL 26, 1823.

No. 39

FACTS AND OBSERVATIONS RELATING TO AGRICULTURE & DOMESTIC ECONOMY.

BY THE EDITOR.

ON FOREST TREES.

As trees both for timber and fuel have become scarce in many parts of the country, it is time to pay a more particular attention to the preservation of wood lots and the planting of forest trees than we have heretofore. We all, therefore, offer some desultory remarks on this topic, premising, that as our object is utility, we shall not waste our time, nor that of our readers, by exhibiting models of labored and empty phraseology. What we wish is to be understood, and if we obtain the approbation of farmers, we shall mind the idle wind of critical carpers no more than the humming of a humble bee that "wheels his droning flight" from one head of clover to another. And first we shall say something in addition to what we have formerly said on the subject of planting trees, which will apply as well to forest trees to fruit trees.

In our opinion the Rock Maple, or Sugar Maple, is, on many accounts, and in many situations, to be preferred to any tree which is adapted to our soil and climate. For fuel, it is scarcely, if at all, inferior to walnut, and the use of its sap or juice is too well known, and highly appreciated to require a syllable in its favor. We wish the borders of all our highways, where this tree will grow, (and it will grow in almost any soil except a mere swamp or a dry sandy waste) might be adorned with this beautiful and useful tree. But it will be well for those who undertake to plant this, as well as all other trees, to make thorough and correct work of it. There is nothing in which it makes greater waste, or negligence punishes the person who is guilty of it, in a more exemplary manner than in the planting of trees. That kind of labor is not well done, if it had never been altogether omitted. If you *half plant* a tree, your soil is cumbered, perhaps for years, with a *half alive* stock, a monument of the indolence and bad husbandry of the owner of the premises. We would as lief see dilapidated barn doors, rotten fences but three and an half feet high, or holes of broken windows half stopped with the ragged remnants of old petticoats, as ankered, worm eaten, blasted fruit or forest trees, dying by inches about a farmer's homestead. If a tree is badly set out, or stunted by mismanagement, when in its infancy, no subsequent art or attention will ever make it thrive. Therefore I tell you again and again, what you do, do well; for otherwise you may as well do nothing. You will then please to proceed according to our directions, page 301, unless you have some better method of your own. And if you have a better method please to communicate it for the New England Farmer, and we shall be happy to give it to the public, together with the name of the author, in our best style of CAPITAL printing.

There are many sorts of Maples enumerated by botanists, but the only kind which we should think it expedient to cultivate is the *Acer Sac-*

charinum, rock maple, or sugar maple. This kind of tree bears transplanting better than almost any other. It is true, we believe, in general, that it is better to take trees for planting from a nursery than from a forest. An able writer in the Massachusetts Agricultural Repository, vol. v, p. 36, affirms that "the practice of transplanting trees from our forests, of six or ten years growth, robbed as they must be of the greater portion of their fibrous roots, and suddenly exposed to a soil and air to which they have been unaccustomed, cannot be too much reprobated." The maple tree, however, will succeed better than almost any other under such treatment. All sorts of maple may, likewise, be propagated by cuttings. And if they be cut from the trees before the buds begin to swell, and before the ground be fit to receive them, they may be wrapped in moss, and put in a cool place, where they may be kept a month or five weeks without injury. These trees may also be raised by sowing the seeds, commonly called keys.*

In clearing land it is customary to reserve or leave standing some of these trees, especially if the land is intended for pasture. This may be a good practice, though it is not without inconveniences and danger. The heavy tops, exuberant foliage and long trunks of these trees expose them very much to the wind, and they are frequently blown over, turning up with their roots a large portion of the surface of the soil. From this cause it is often dangerous to permit cattle to range among maple trees, which obtained their growth in a forest, and are afterwards exposed in open land to the gusts of wind which so frequently accompany showers in the summer months. It is better, in clearing land, to leave small maples, or to protect and rear a second growth, than to undertake to preserve the ancient tenants of the forests. Trees which have ever been *accustomed* to free currents of air will put forth roots adapted to their exposure. Twenty or thirty trees to an acre of pasture will do but little injury to the grass, will afford a shade and shelter grateful and beneficial to cattle, and, six or eight acres thus stocked with rock maple trees, will afford a valuable sugar orchard. Mr. Bordley, in speaking of these trees says—"A grove of them, two or three acres, would give comfortable shady walks and sugar for family use; the making whereof would require but a short time, and be an entertaining harvest. The trees 30 feet apart, are above 48 on an acre; which at a low reckoning would yield 200 lbs. of sugar an acre, deducting only a trifle, not so much for labor as for a short attention in the leisure month of February.† From seeds it may be 20 years before the trees yield much sugar, but they soon form a delightful shady grove, and they grow readily from seeds. Instead of 48 trees there may be 48 clumps of three or more sugar maples in each clump. Sugar maples growing in fields, uncrowded, give 7 lbs. of sugar a tree; then clumps of four trees may yield 24 lbs. a

clump; and 48 such clumps may be reckoned to give 1150 to 1300 lbs. from an acre."*

We believe Mr. Bordley has made a large allowance of sugar in his calculations, and he says nothing of the fuel for boiling the sap; but still a sugar-lot may be made sufficiently profitable to become an object worthy of attention. And it should not be forgotten that the rock maple not only pays its annual tribute, in a delicious and wholesome product, but at the end of its term yields a more valuable species of firewood than almost any tree of the American forest.

Oak.—Mr. Miller says "Oaks are best produced from the acorns in the places where the trees are to remain; because those which are transplanted will not grow to so large a size, nor remain sound so long."‡ The author of the Agricultural Report of Scotland says, "Trees may be raised by sowing seeds on the spot where they are to grow. There are now many promising oaks among the plantations at Gartmore, which have sprung from the acorn dibbled into soil altogether unimproved." Again, he observes, "It is the opinion of physiologists, that trees have that portion of their nourishment, which they derive from the soil, conveyed to them by their minute fibres, which run in every direction from the root, called the *tap-root*, proceeding downwards in a perpendicular direction, and the use of which is to support the tree against the violence of the winds. In removing any tree from its first situation, some injury must be done to these fibres, and especially to the *tap root*; and the oftener the tree is removed the greater will be this injury. In this respect, a tree, which is permitted to grow in its original site has an advantage over the transplanted tree. In the same view, a plant taken from the seed bed, and planted but once, (instead of suffering a *first* transplantation to the nursery, and then a *second* into a plantation,) will surely have the best chance of success. And where is the impracticability of raising such plants? If the nursery man will only sow his acorns in drills, sufficiently wide to admit of hoeing, and thin the plants the first and second years after they have come up, by removing the more unpromising ones, he can by the third year furnish plants of sufficient growth, that have suffered no *previous* injury by removal from the seed-bed. Still, however, there appears to be something *contrary to nature* in removing a tree from the spot in which it had its origin."§ This, however, must frequently be done from necessity, and if due care is taken in transplanting a young tree, but little if any injury is received by the tree which is removed. Some writers, however, maintain that two or three times transplanting a tree is necessary to give it a fair start. Every root and fibre, they say, which is cut off in order to prepare a tree for transplanting is succeeded by several roots and fibres, the number of *vegetable mouths*, by which the plant procures food from

* Bordley's Husbandry, p. 4.

† Deane's N. E. Farmer, Art. *Oak*.

‡ Agricultural Report of Scotland.

* Deane's N. E. Farmer, Wells & Lilly's ed. p. 263.

† March and April, in New England.

the soil is thus increased, and a more rapid and vigorous growth is the consequence. But in addition to the authority above quoted in opposition to the theory of digging up trees and cutting off their roots in order to make them thrive more abundantly, we beg leave to cite the example of *nature*. Trees planted by her hand in forests which have never been pervaded by human foot steps, have, of course, never been transplanted, but yet exhibit the largest and most perfect specimens of their kind.

The acorns for planting oaks should be taken from the largest and most thrifty trees. They may be gathered as soon as they fall in autumn, and kept in a box or boxes of sand till the following spring. Then open them and plant such as have sprouted, allowing no time for the sprouts to dry.

TO THE EDITOR OF THE NEW ENGLAND FARMER.

I here enclose a treat, a literal translation of an ancient fragment, which I wish to see versified* and published in thy paper. During the summer of 1813, I was in Philadelphia, and hearing of a curious old German book called *Archimedes' Work Shop*, after some trouble, I obtained the loan of it for some months. It was an uncommonly large folio, printed in Nimwegen, in 1661. It was principally composed of plates, of which there were upwards of three hundred. The language was obsolete German and Latin, with some Greek, and required the study of the most learned men in the city to read it. The plates were intelligible, and it appeared to really be the work of Archimedes. There were drawings of various kinds of Machinery, which he took in travelling through Egypt, such as Joseph's Well, 300 feet deep, and 600 wide, cut through a rock, with winding stairs, and water drawn from one reservoir to another by screws. He said that at the building of Thebes the sciences were better understood than in his time. The learned Divines were anxious to know his religion, or ideas of the *Supreme Being*; therefore by resorting to old lexicons the enclosed translation was made.—There is no imposition—it is genuine. I wish to see it versified, and published in your paper, in order to show the ideas of this eminent philosopher with regard to the SUPREME BEING, and the necessity of labor.

SAMUEL PRESTON.

Stockport, Pa. April 3, 1823.

A LITERAL TRANSLATION OF ARCHIMEDES' HYMN ON THE STRUCTURE OF GOD'S WORKMANSHIP.

1. The great God hath drawn in wisdom the high arched circumference of the world;
2. And has by his knowledge ordered every thing one against the other.
3. He has placed water against the land; the hill against the dale;
4. And, indeed, without any trouble or labor of his hands.
5. Soon as he spake the word was every thing completed, which he designed;
6. And in so masterly a manner, that whosoever thinks of it is astonished and lost in wonder.

* We hope our friend will excuse us for not attempting to versify the sentiments of Archimedes. We believe the ideas of the author can be more *exactly* given in prose than in verse; besides, we have not leisure, at present, to give them a metrical form. If any of our friends or correspondents will clothe them in a poetical garb, we shall esteem it a favor.

7. But as he himself first upreared this globe,
8. So has he also implanted a part of the godhead in man,
9. As the image out of which he himself looks, and sends forth rays of his power from his eyes.
10. Hence the earthly man, he whose origin is clay, is so divinely enlightened and celestially exalted,
11. That he, soaring after his Creator, obtains the spirit of wisdom, and brings to the light of day many of the works of art.
12. Thus has God created this out-work of the world, with its appurtenances, and beautifully ornamented all things.
13. So man builds in the world no otherwise than as if he were a journeyman in God's great work shop.
14. He searches heights and depths, how hills and valleys arrange themselves, in wonderful and uninterrupted continuation, surrounding one another, even as the elm and the vine.
15. His omniscient mind compels the drought and moisture to do whatsoever he commands them.
16. Nevertheless, for all things which man can perform, there is required time and pains.
17. These things cannot be immediately performed.
18. What God can effect by his command will not forthwith be done by the mere word of man.
19. Art has her right, she can indeed subdue all things, and what appears impossible, she can, notwithstanding, accomplish.
20. Yet does she require many an hour and great industry, until she seems sure of her aim, according to her wish.
21. The noble palaces in which princes dwell can never be raised while we shun the requisite labor, but will come short of being finished.
22. Without an unwearied hand the artist will never acquire glory.
23. The floods which pour their waters into the deep vallies are not by nature accustomed to flow up hill;
24. But obedient to the power of art, which forces them towards the heavens, they spring, as it were, to the clouds, from the lowest depths.
25. Yet, nothing is done without toil. The strong current of water must, as it were, be compelled by computation, by number, weight and measure, which does not err in the least, and by much manual labor to ascend aloft.
26. How all these things are to be performed, according to art, is here notified to be seen in this Book; in it are produced to view the rudiments of those arts, which Europe keeps concealed.

It appears that when Archimedes wrote this book he was in Egypt. The hymn was in 26 stanzas, in long lines.

TO THE EDITOR OF THE NEW ENGLAND FARMER.

I have known the following experiment tried for the purpose of killing bushes and improving worn out land, and the result has much more than equalled the anticipations of the owner. Should you deem this worthy of an insertion in your paper, you are at liberty to make that use of it; otherwise you may dispose of it as you do of other useless communications. Previous to the season of 1818, the bushes, on a lot, containing about three and an half acres, had been mowed, annually, for three or four years, without perceptibly diminishing their number. During the May of this season, about a bushel of plaster to an acre was sowed on the whole lot. Towards the last of June clover began to make its appearance among the grass and bushes, and wherever the bushes were formerly the largest, the clover grew, and still continues to grow rankest. Notwithstanding cattle ran in the lot several days in June, by the middle of July it afforded a crop of the first year's growth of bushes and clover, equal in value to the profit of either of the ten preceding years. Since then, the crops have continued to increase both in quality and quantity, and

the bushes are now almost exterminated. The killing of the bushes with much less labor and expense than in any other way with which I am acquainted, is not the only advantage derived from this method of improving pastures; the shrub apple trees which abound in almost all old pastures can, by engrafting them and keeping cattle out of the lot, easily be made thrifty and soon, bearing trees, which has been done in the above case. As circumstances permit nearly a correct estimate of the improvement in the value of the mowed crop, I will state that ten years since this lot was leased for three dollars, and that the present owner has been offered twenty five dollars a year for the grass the two last years; thus affording an increase of profit of more than eight to one. This has been effected with less than one load of manure and but two dressings of plaster. Should any one object to trying this experiment even on a small scale, on account of his land's being too bushy, I can assure him that some part of the lot would, a few years since, compare with the worst. The stones, except the most prominent, will gradually disappear by the rotting of the fallen growth, and the land becomes much more smooth, than most people would suppose at first thought. A similar experiment has been commenced on a lot of twenty acres, and with a prospect as yet of as complete success as the former case. From experience I have been induced to believe that mowing lands without letting cattle on them at all, is the cheapest as well as the most effectual way to kill bushes and frequently far more profitable. No one can doubt for a moment but that feeding is to bushes what weeding is to corn, and that the closer a pasture is fed the less the obstruction is to the growth of the bushes, as they are always left untouched.

ANONYMOUS.

April 16, 1823.

FOR THE NEW ENGLAND FARMER.

MR. FESSENDEN—I have seen in your excellent paper, the use of Lime often highly recommended to the practical farmer as a manure. It is said to be very useful in order to prepare green or long manure for immediate use. Would it not confer a favor on your patrons, some one, who is acquainted with the use and operation of lime, would communicate through the medium of your paper, the manner and quantity which should be mixed with a load of green manure, and also how long after the maturity before the straw and stubble will be composed and fit for use?

A SUBSCRIBER.

Livermore, Maine, April 19, 1823.

FOR THE NEW ENGLAND FARMER.

I have noticed with satisfaction the remarks of my venerable worthy friend, Col. T. Pickering, respecting the strength of Timber, in No. 32 of the New England Farmer. The strength and duration of timber are certainly an interesting subject to farmers; and as the lands are cleared up, and timber becoming scarce, it will become more so.

It is not a subject that will admit of mathematical demonstration; observations and experiments are all the evidence that we can have. As I have formerly been accustomed to work in wood, and from an early period of life paid attention to the subject, and the observations

and directions of men of more age and experience, I make a few remarks in hopes it may induce others to communicate more full and correct information.

Since my memory, there was living in the neighborhood of the place of my nativity, Bucks County, Pa.) a very worthy and respectable character whose name was ALEXANDER BROWN. He was more curious, particular, and exact in every thing he did, or had done, than any other man. He gave rise to a saying, "More nice than wise, like Alexander Brown."

In his early days, before saw mills were erected, his business was to go about with a company of hands, and do the sawing for the buildings, with whip saws. A large landed patrimony falling to him, he cleared up several farms for his sons, and erected several substantial buildings. His life was more devoted to experiments than lucrative speculations. He used to say that the nerves and strength of old trees, like those of old men, began to fail gradually, any years before they died; and that for all his buildings or fences he only took such timber as he termed in the vigor and prime of life; and all his timber for fences, or other uses, he would have felled in February, when the wood is hardest frozen, saying then there was the least sap in the pores to corrode and rot the wood. He never would suffer a post set in the ground except top end down; but said posts split out the same cut, set with the top end in the ground, would last three or four times as long as those set butts down. In splitting the posts, if any were too small at the top to set in the ground, he would not use them as posts. In making fences, every rail must be put heart side up, and this he gave rise to another saying, viz: "As durable as Alexander Brown's fences." He died at a very advanced age, during the revolutionary war, highly esteemed as a truly honest and useful man, having been for many years considered the oracle or pattern for all the best farmers in the circle of his particular acquaintance.

The next man I shall mention of great observation and experience in the strength and duration of timber, is THOMAS ELLICOTT, noted as the most ingenious Millwright of his time. With him I was intimately acquainted; he followed building and repairing mills and waggons on a large scale, successively, for forty years. He had felled timber for his purposes. As to the proper season, he was a disciple of Alexander Brown. White oak timber, for waggons or mills, was all felled in February, when the wood is hardest frozen. His rule to select the strongest and solidest wood was to cut into the trees and take those of the largest growths. If by splitting in, the growths near the bark were smaller than the others, he considered the wood declining, and rejected such trees. He never used more than about twelve feet of the cut for waggon wheels; then generally came saw log for mill works. His better mode of seasoning his timber for the most strong durable work, was, at first, soak it three months in a pond of water, to take out the sap, and prevent what they call "powder posting," or being eaten with small worms. Such was the practice of Thomas Ellicott, founded on accurate observation and extensive experience. He never would cut timber for his business, only when hardest frozen in the winter, except small tough white ash, for *Cradle fingers*. He

found, by experience, that kind of wood tempered best for that purpose, if cut down when full of sap, and the bark loose.

As perhaps every farmer may not know how to make cradle fingers in the best and readiest manner, to the exact crook of the scythe, I will give the simple process. Lay the scythe on a plank or slab, and mark round the back of it with chalk; bore a row of holes on each side the chalk, at a proper distance apart, to take in the fingers, when rough shaved out; put pins in the holes, and it is the mould to set the fingers. Take the but of a small white ash, say four or six inches diameter, the straighter grain and larger growth the better; split it into suitable pieces, carefully marking exactly on the ends which side was next the heart; then shave them down square, nearly to the size, so as by the square they will all bend exactly from the heart, for all such young wood naturally inclines to spring from the heart. Make a fire of hot embers and ashes by the water—run them in the fire, and dip them in the water and fire alternately until they are heated through. They will then be very limber to put in the mould. As soon as they are dried through, they are fit for use, and if properly treated will never incline to spring back—will be easier and smoother dressed than crooked stuff, and being straight grained are stronger and may be dressed smaller.

I now wish to hear a statement of the nature and properties of Timber in the Eastern States, for I believe there is a difference in the nature of timber in different ages and climates.

SAMUEL PRESTON.

Stockport, Pa. April 10, 1823.

From the American Farmer.

CULTURE OF SWEET POTATOES.

Hopkinsville, Ken. Jan. 30, 1823.

J. S. SKINNER, Esq.

Sir—In the American Farmer, of the 3d inst. I find an inquiry, as to the kind of manure best adapted to the raising of sweet potatoes, and the best kind of culture, to insure a great crop. I readily agree with the inquirer, that this is a most valuable vegetable, and has been too long very much neglected. Yet I make no pretensions to answer his inquiries on this subject; but only to state a few facts, giving a brief detail of my own mode of cultivating this root.

I will premise that any increase of crop was not ascertained by actual admeasurement, but only by the eye, when viewed in bulk, and a larger root for several years in succession, after my mode had been fairly tried.

The first step in the process, is to enclose the lot intended for your sweet potatoe crop to itself. Your ground is, of course, to be next ploughed; and here I will remark, that for no crop is deep tilling more necessary. When your ground is thus prepared, throw it into ridges, three and a half feet apart, with a large bar share plough, causing the upper points of the two meeting furrows, to come within two or three inches of each other. On top of these ridges lay your plantings one foot apart, each planting forming a triangle with the two preceding, then cover them with a hoe, pulling up the earth from between the ridges. It is desirable to cover them with rich mould; if the planting is embedded in a clay covering, it does not vegetate so quick; consequently the root

is more apt to perish. This ridge, when it is covered, should be as high as a large potatoe hill. This mode of putting in your crop, together with the subsequent culture, will be found, upon trial, to take far less labor than the usual method of making and planting in hills.—The chief of the tillage, until you come to hilling, may be done with a light one horse plough. But the greatest saving of labor is in gathering your crop; which is performed after throwing the vines in a line between the ridges, then with a plough, throwing one third on each side of each ridge on the vines. Nearly all the potatoes will be left in the remainder of the ridge, which are to be thrown in baskets, and conveyed immediately to your potatoe cellar, which ought to be uncovered every day until they are done sweating.

The chief advantage, however, which I promise myself is the subsequent use I make of my potatoe lot. Those who prefer the old mode of management, may still pursue it, and derive the same advantage in giving their ground an aptitude for the growth of this root. Nothing is necessary to insure an annual increase of crop, the seasons being equal, than as soon as you get your potatoes off the ground to turn in your hogs intended for slaughter, and there to fatten them until they are ready for slaughter. I have known a good crop made where this plan had been pursued in a very dry season, when not a single neighbor, without it, made any.

If you deem the foregoing worthy of being presented to your correspondents, you are at liberty to do so. Your's, &c. A. Z.

NOTE.—You will perceive that I have not attempted any reasoning on the foregoing; no doubt, the chief benefit is by the deep rooting of the hogs, and consequent action of frost upon the earth—moreover, some manure is deposited.

TO REMOVE VERMIN FROM CATTLE.

I have found that a small decoction of tobacco, washed over a beast infested with vermin, will generally drive them away; it sometimes makes the beast very sick for a short time.

But a better remedy is to mix plenty of strong Scotch snuff in train oil, and rub the back and neck of the creature with it, which will effectually kill or drive away all vermin from a quadruped.

MIDDLESEX.

To the Editors of the N. Y. Statesman.

DANVERS, (Ms.) March 30, 1823.

I observed in your paper of Oct. last a paragraph from a Cincinnati correspondent respecting the cultivation of woad. I have the last year cultivated this plant on about five acres, and had three good crops, considering the season, the autumn being dry. We use it with indigo upon our best wool. I see no good reason why the indigo shrub will not thrive here, and perhaps it may be used green or dried by our dyers in cases of necessity.

Our supertine merino wool is as good as any from Spain, and I have seen better and softer cloth made from American wool than some imported, at \$1.25.

How to extract poison from a rusty nail.—Take a bean, and after splitting it apply one half (flat side) to the wound, bind it on, let it remain till it comes off itself, and the poison will be extracted and the wound healed.

DESCRIPTION OF A BRUSH FOR DESTROYING CATERPILLARS' NESTS.

To the Corresponding Secretary of the Massachusetts Agricultural Society.

DEAR SIR—For the last three or four years, we have here had very few caterpillars. Last week I observed an increased number, though not many, on my young apple trees. How to destroy them *most easily*, was a question which occurred as often as I have seen orchards infested with them: while I always considered it disgraceful to a farmer to suffer his trees to be stripped of their leaves, and their fruit, for that season at least, to be destroyed; seeing it was very practicable to get rid of them, and without much trouble, by crushing them, when small, with the fingers. This was my father's mode, when I was a boy. The same long, light ladders, which served in autumn in gathering his winter fruit by hand, enabled one to come at most of the caterpillars' nests in the spring. On this effectual example I have myself practised, since I became a farmer. Some over delicate persons might object to this mode: but it is really far less offensive than the bare sight of large and numerous nests with which apple trees are sometimes filled. And if the operation be performed early, when the caterpillars are only from a quarter to a half an inch long, the operator (man or boy) will feel no repugnance to the process. But in full grown trees, some nests towards the extremities of their small limbs would escape, because not accessible by ladders. A narrow brush, formed with small bunches of bristles in a single row, I once thought might reach and destroy them; but it was not found effectual nor convenient. Last Saturday morning the idea of the proper kind of brush occurred to me, and in the forenoon I tried it with complete success.

I presume every farmer has observed, that the clusters of eggs producing caterpillars, are laid round the slender twigs of the apple tree and wild cherry, and effectually guarded by a gummy covering, until vegetation commences in the ensuing spring. When first hatched, the worms appear about the eighth of an inch long. The same warmth in the air which opens the buds, hatches the caterpillars to feed on the embryo leaves. Their first object is to provide for themselves a tent for shelter, in their new state, against the inclemencies of the weather. For this purpose, they crawl to a small fork of a limb, where the branches form a sharp angle; and there spin and weave a web with which they surround it, and where they are secure against undue cold and heat and rain. By this small white web they are discovered, and are then most easily destroyed. But the clusters of eggs are not all hatched at the same time. According to their situation for warmth or coolness, they are hatched some days earlier or later. At the distance, therefore, of a week or ten days after the first visit, an orchard should be again inspected, and all the latter broods destroyed. If neglected in this first state, they soon, by their growth, become straitened for room; and having also consumed the nearest forage, they march and take a new station, and there form a new and more ample tent. By such neglect the mischief of their ravages is increased, and they are with more difficulty destroyed.

The efficient and convenient instrument above mentioned, for this work, is nothing more

than a common bottle brush fastened on the end of a pole. Having an old one in my house, I was enabled to make the experiment on the day when the idea of so applying it occurred to me. This brush is made of hogs bristles, introduced between two stiff wires closely twisted; and being convenient in cleaning the insides of bottles, is probably familiarly known whenever liquors are bottled. For the information of others, I will mention, that a piece of wire full one tenth of an inch in diameter, about three feet long, doubled, and leaving a small loop in the middle, is closely twisted for the length of about eight or ten inches from the loop; and then the bristles, being introduced between the remainder of the branches of the wire, and these closely twisted upon them, the bristles are immovably fixed; and thus form (after being uniformly sheared) a cylindrical brush about six inches long and two and a half in diameter. To fasten this conveniently to a pole, with a small gouge I made a groove about seven or eight inches long at the small end of the pole, in which nearly all the handle (the naked portion of the twisted wire) of the brush was laid, and bound on with three strings.

In using the brush, press it on the small nest, and turning the pole in the hand, the web is entangled with the bristles, and removed: otherwise, you rub the fork of the limb, inside and outside, with a brush, when nest and worms are surely killed or brought down. That the experimenter may see its mode of operation, he may apply the brush with his hand to a nest within his reach. Spruce poles are eligible, because that wood is light and stiff. For my small trees, I found a common bean pole (used for running beans to climb on) six or seven feet long, sufficient: and for them a longer pole would be inconvenient. For taller trees, poles proportionably long must be provided.

If you are satisfied, by my account, of the utility of this simple instrument for destroying caterpillars, you may think it proper immediately to make it publicly known. Should the description be more minute than is requisite for communicating a clear idea of it, and its application, you will abridge it.

With very great respect and esteem,

I am, dear Sir, truly yours,

TIMOTHY PICKERING.

The following remarks on the subject of Agriculture are from the New York Statesman. They were occasioned by an attempt to repeal certain acts by the New York Legislature, making appropriations out of the treasury for the promotion of Agriculture.

We have never entertained but one view of the expediency of the appropriations heretofore made for the encouragement of agriculture; and that has been decidedly in favor of the liberal policy of the government. The agricultural Societies, instituted in the several counties of the state, in consequence of the munificence of former legislatures, have already been of essential service to the community, and results still more important may be looked for in a few years, if these valuable institutions shall continue to receive the patronage and support of the state. We do not hazard much in asserting, that greater advances have been made in the cultivation of the lands, in the breed of cattle and horses, and in domestic manufactures, since the establishment of the Board of Agri-

culture and Agricultural Societies, than had been for the twenty years previous.

In many parts of the state, the face of the country has assumed an entirely different aspect. A generous emulation has been excited among the farmers. Agricultural science improvements in rural implements, the successful experiments of others in introducing new modes of tillage, new varieties of vegetables and fruits, and generally, the most effectual means of increasing the productiveness of the earth with the least labor and expense, have become the common topics of conversation. The spirit of inquiry has gone forth; antiquated and laborious modes of cultivation have been examined and exploded; prejudices which had become inveterate by long usage have been corrected; and a system of rural philosophy and domestic economy has been introduced.

Independent of the immediate benefit to agriculture, arising from the influence of the societies, they have had a salutary effect on the community by increasing the general stock of knowledge. A vast body of useful information, topographical and statistical, has been widely circulated through the state, in books, pamphlets, anniversary addresses, reports, and newspaper essays. The varieties of soil, the productions, and resources of the several counties of the state are much better understood. Farmers have become more accustomed to reflect, and reason on subjects relating to the profession; and the general mass of intelligence has been greatly augmented.

The competition excited by annual exhibitions and awards of premiums has led to habits of greater activity and industry in both sexes. All classes have been stimulated by a laudable ambition to excel in agricultural knowledge and skill, in rural wealth and rustic honors. *Catt Shows and Fairs* are regarded, not as mere holidays for relaxation from labors and as seasons of festivity, but as the fields of fame, where the farmer contests the rewards of ingenuity, industry, and superior merit, and wins for his brow a wreath of victory, not less honorable, and far more useful to society, than the bay of the scholar, or the laurel of the soldier. The labors of the housewife, and the products of the husbandman are on these occasions exhibited in triumph, and the fatigues of labor in some degree compensated by the meed of public distinction and applause.

Another benefit derived from the institution of these societies has been the increased popularity of agricultural pursuits. The profession of the farmer has been rendered more respectable and more fashionable than formerly. Men of talents and of wealth have turned their attention to agriculture, and are now engaged in experiments for the promotion and improvement of the science. The efforts of these wealthy and public spirited individuals have already been attended with the happiest effects.

We have been surprised that the members of our legislature, with the experience of other countries and other states as well as that of our own before them, should again attempt the abolition of societies, from which such obvious and important advantages have been derived. The proposition is the more singular at this time when *Agricultural Schools* have been projected the objects of which are in most respects similar to those of the institutions now in existence.

we were happy to see new plans proposed for the benefit of the agricultural interest.—They would doubtless be attended with great practical utility. Much has been done by the government for the other interests of the community. Scientific, literary, and other institutions have been munificently endowed and liberally patronized; while, till lately, very little has been done for agriculture, and it is now opposed to withhold even that pittance. A policy so short-sighted and narrow in its views would seriously injure the reputation which the state has acquired both at home and abroad, for being foremost in the great system of internal improvements, now rapidly extending throughout the country.

MUSTARD, HOW MIXED.

Boil a sufficient quantity of horse radish in the best white wine vinegar, add to it half as much mountain or good raisin wine, and a little soluble refined sugar; then make it up to a proper consistency with the best unadulterated Durham flour of mustard, stop it up close, and will keep for years. Mustard thus made has an inconceivably fine spirit and flavor. Common keeping mustard may be made by only substituting water for the vinegar, with or without garlic, and a little salt. The flour of mustard should be gradually mixed with the boiling water or vinegar, to a proper thickness, and rubbed perfectly smooth.

HOW TO RAISE TURKIES.

Plunge the young chick into a vessel of cold water, the hour, or if that cannot be, the day it hatched. Force it to swallow one whole pepper corn, then return it to its mother. From that time it will become hardy and not fear the cold. When young turkeys begin to droop, examine carefully the feathers on their rumps, and you will find two or three, whose quill part is filled with blood. Upon drawing these the sick recovers, and after requires no more care than is bestowed on any other poultry.

TO ALL WHOM IT MAY CONCERN.

CORSETS.

Mrs. Deshang of Bethany in New Jersey, as the mother of three amiable daughters highly accomplished and beautiful; the young ladies have long been in the habit of lacing as tight as any of their neighbors; one has become quite infirm and the other two evidently droop. The alarmed parent stated the situation of her children to her old friend the venerable Dr. Allen of Philadelphia, who soon after the receipt of her note, forwarded the following reply.

MADAM—The case of your charming daughters affects me, and my whole experience may be put in requisition to assist them; that they were healthy, robust, and fine children, I perfectly recollect, and that their healths are now impaired may perhaps be solely ascribed to themselves. Fashion destroys more females than fevers. From a mistaken notion of bettering the best work of Heaven, the infatuated air risk health and even life itself. I deem the corset of the present day to be a perfect engine of torture, and worthy the Inquisitions of Inquisition, and Rome, and infinitely worse than the days of time gone by. These last be sure were

injurious, but they left the resemblance of a female shape: the corset on the contrary presents the waists as regularly round and untapering as a white lead keg. The olden stays I remember were laced with a silken string, of the size of the finest twine, but the corset requires a cord equalling the bow string of a Kickapoo Chief. The antiquated hoop was of formidable expansion, and when first thrown upon the public eye created no trivial sensation—but in itself it was perfectly harmless, there was no compression about it; and the lady abode as safely within its ample circumference as the sentinel in his box. Every dog will have, and every fashion must have its day; the reign of the corset has endured about as long as the reign of Bonaparte, and like the latter, fatal enough in all conscience. I anticipate the happy period when the fairest portion of the fair creation will step forth unincumbered with slabs of walnut and tiers of whalebone. The constitution of our females must be excellent, to withstand in any tolerable degree the terrible inflictions of the corset eight long hours of every day, or the horrible total of 178,200 minutes in one year. No other animal could survive it. Take the honest ox, and enclose his sides with hoop poles, put an oaken plank beneath him, and gird the whole with a bed-cord, and then demand of him labor. He would labor indeed, but it would be for breath. Splinter and belay a pig in the same way, and a whine might be aspirated, but it would be a whine of expiration.

But I fear I am trespassing too violently on your patience, and in pity to you conclude with the old Caledonian motto, "Spero meliora."

Yours, GALEN.

NEW ENGLAND FARMER.

SATURDAY, APRIL 26, 1823.

The Farmer's and Gardener's Remembrancer.

APRIL.

PRUNING TREES.—It is now, we believe, about the right time to prune your fruit trees, and such of your forest trees as it may be worth while to subject to the operation. Col. Pickering assures us that his "practice has been to prune in the spring, beginning when the buds have scarcely begun to swell; and ending before the expansion of the leaves." That is, commonly, in this climate, from about the 10th of April to the middle of May. A writer in the Massachusetts Agricultural Repository, vol. v, p. 121 to 127, accuses N. E. farmers of some very bad management with regard to this department of rural economy. He says "it is a universal practice among the old farmers to mount the tree with a hatchet or bill hook, and hack off any branch which is in a state of decay, or which is misplaced, about six or eight inches from its insertion, leaving a stump to rot, and to operate as a conductor of the water, frost and canker into the mother branch in which it grew, or into the body of the tree according to its situation. This was done originally from an idea that if you cut close to the mother branch, or to the body of the tree, the rot or canker will seize more readily on its trunk, than if cut at a distance, and that the tree will decay the sooner. This practice has been followed without reflection, and without reason by many, but the error is so obvious that any man of obser-

vation may see it yearly; and any one who doubts may satisfy himself in one season of the incorrectness of the practice, by making his experiments on a young tree."

This writer advises the orchardist, when he has fixed upon a limb to be lopped off, if it is large and heavy, to cut first at some distance from its insertion, to prevent its weight in falling from lacerating the bark of the shoulder, whence your final cut is to be; because this leaves an opening for water to get under the bark, and cannot easily be healed.* You may now saw the stump close to the branch from which it proceeds with safety; or if it be a portion of a branch which is to be lopped off, the cut should be down to a sound, healthy, lateral branch, growing from the same limb; or if the limb to be cut off proceeds from the body or trunk of the tree, then it should be sawed close to the shaft. The wood in all cases should be smoothed over, and the edges of the bark carefully pared with your knife or hatchet, so that the water will run off the wound. If the cut be made on a side branch, it should be sawed obliquely or slanting, so as to leave no dead wood, or wood to die, and in all cases the cut should be on a sound and healthy part of the tree.

Another error, according to the same writer, consists "in the habit of encouraging luxuriant upright branches to the great injury of the natural horizontal fruit-bearing branches; these are very properly called *glutton* branches, because they consume the sap, which would otherwise go into the lateral and fruit-bearing branches, and in the course of a few years they leave the fruit branches decaying and decayed; the farmer then resorts to his axe, cuts away the dead and dying wood, and leaves the *glutton* in full possession of all the nourishment which the roots afford; but in return this voracious member of the orchard gives no fruit until many years, and then of an inferior quality. "To prevent this the cultivator should suppress all the stiff, upright shoots the first year they appear, by cutting them off close to the branch from which they issue, taking care not to leave the shoulder to the shoot, as he will in such case have the same duty to perform again; but if the shoulder of the *glutton* be cut away, the sap will be distributed among the lateral fruit bearing branches, which will be kept in vigor, and continue in a healthful fruit-bearing state."

Mr. Forsyth, and other writers, give numerous and minute directions relative to restoring old and decayed trees; and where the kind is very valuable, and its fruit uncommonly fine, it may be expedient to be at some pains and expense to prolong the life of a tree which is withering and rotting with age. But we think there is good sense in the following observations by Mr. McMahon, who says, "I am not an advocate for much doctoring old, decayed or sickly trees, but the reverse; therefore recommend as the preferable way to replace such with young healthy trees, so soon as they shew strong symptoms of decay. Whenever you meet with a tree the fruit of which you esteem, propagate it immediately, whilst in health, by budding or grafting, &c. and if it should afterwards get into a declined state, replace it with

* Or, to prevent this, the bark and a part of the wood may be first cut on the under side.

one of the same or some other kind." It is said, however, and we believe truly, that a young tree will not flourish in the spot where an old one of the same kind had grown.

Suckers should not be suffered to remain from one year to another, near the roots nor on the body of the tree. If the tree appears to have a tendency to put forth a redundancy of wood, the young shoots should be pinched off while tender, but should not be cut while the sap is flowing, because the blossom buds may thus be deprived of sap.

The gum or natural juice of the tree is the best salve for curing wounds made by pruning; and it generally effects the purpose. But when the tree is old, and the wound large, an artificial covering becomes necessary. Mr. Forsyth's composition of lime, cow dung, wood ashes, and sand is too well known to need a particular description. This composition, however, is not so highly valued as it was formerly. "It does not," says an English writer, "appear the best calculated, whether laid on in paste, or with a brush, to resist the sun and rain." "Having had," he adds, "to head down several large trees, and conceiving this composition not calculated for what I thought essential, namely, keeping out the sun, wind and insects, I had part of the trees dressed with this composition and other parts with a composition of pitch, tar, lime, rubbish and sand, boiled to a hard consistence, and laid on hot. In a few months I found Mr. Forsyth's composition partly scaled off, and washed away, and insects harboring under it; but the tar composition was then, as it is to this day, firmly adhering over the whole surface of the wound."

Another kind of composition, recommended by some writers is composed of rosin, bees wax and turpentine; and a third of tar, bees wax and red ochre, boiled or simmered together. The proportions for the last mentioned are a pint of tar, a piece of bees wax about as big as an English walnut, with about half a gill of red ochre, stirred into the mixture while boiling or simmering. But a writer on fruit trees, whose remarks may be seen No. 19, page 145, column 2d, of the New England Farmer, declares that he has found by experience turpentine to be injurious to trees in Carolina, though he supposes in a northern climate it may have no bad effect. This writer recommends "one measure of olive oil, or hog's lard, three do. of melted bees' wax mixed while hot, to be worked after it is cool till sufficiently pliant." Dr. Thacher says, (Orchardist p. 73) "it is probable that a composition consisting of clay, tempered with horse dung, will be found of equal utility;" that is as useful as a mixture of bees' wax, rosin and turpentine. The author of the Agricultural Report of Scotland likewise recommends as a plaister for wounds in fruit trees "a mixture of clay and horse-droppings," and says, "this, as it excludes the action of the air and rain is considered to be equally effectual as Mr. Forsyth's composition."

CURRENTS.—This shrub is propagated from cuttings, or short pieces, cut in the spring, from shoots of the last year; and in most cases it is best if they have a joint or two of the former year's wood, at the bottom of them. The cuttings, says Mr. Cobbett, should have altogether, about six joints or buds; and three of them should be under ground when planted. The cuts

should be performed with a sharp knife, so that there may be nothing ragged nor bruised about either wood or bark. It should be trimmed in such a manner that no limbs are allowed to branch out nearer the ground than six inches. Prune the bush every year and keep it thin of wood. The Farmer's Assistant says that "an acre, planted with currants, and well cultivated, would probably yield, on an average, a quantity of fruit sufficient to make a thousand gallons of wine yearly. The expense of making the wine does not exceed 50 cents a gallon, and the wine, after having received a little age is worth double that money."

AGRICULTURAL PREMIUMS.

We perceive with much pleasure, that the different Agricultural Societies in New England appear to be laudably and zealously engaged in the great objects of their institutions. We should be happy to copy every agricultural notice, and list of premiums, published in the papers which we receive in exchange; but, in this case, we should make our paper little more than a register of proceedings, which are chiefly interesting to candidates for premiums in particular counties. We wish our articles in general to possess general interest, and to be such as claim the attention of every farmer in every part of the Union. When, therefore, *nothing new* is proposed as an object for a premium, we shall not, generally speaking, copy the notice. We can, however, assure the gentlemen proposing premiums, that our heart is with them, and our pen and types at their service, to be devoted in any mode consistent with our paramount obligations to the public at large.

LITERARY CURIOSITY.

The "*Curious old German Book*," described in a preceding column, by our highly esteemed friend and correspondent from Pennsylvania, should seem to be worthy of the attention of the scholar, philosopher and mathematician. That part of it, however, which consists of "obsolete German," we can hardly believe to be the work of Archimedes, who was born at Syracuse, in Sicily, about 287 years before the commencement of the Christian era. At the period when Archimedes lived, we apprehend the German language was not known in Syracuse, and we doubt whether Archimedes ever heard of such a language. In the time of the historian Tacitus, who was born in the year 57 of the Christian era, the Germans, according to that writer, were not acquainted with the use of letters, and of course a very learned and elaborate treatise could not have been written partly in the German language, more than 300 years previous to that period.

We do not pretend even to conjecture how the book in question came into existence. But the following particulars, may, perhaps, assist in tracing the origin of the work. When Constantinople was taken about the middle of the fifteenth century, such writings of Archimedes as existed, together with the commentary of Eutocius, escaped the ravages of the conquerors, and were brought thence into Italy. Here they were found by the famous John Muller, better known by the appellation Regiomontanus, who carried them into Germany, and they were soon afterwards, viz. in 1544, published in folio at Basil, in Greek and Latin, by Hervagius, with a preface by Thomas Gechauf. An edition, in Greek and Latin, in folio, was published by Rivaltus, at Paris, in 1615. Many other editions of the various productions of Archimedes have from time to time been published in Germany, France, and Great Britain, but in the accounts of these editions which we have been able to find, we have not seen the title nor

any notice of the book mentioned by Mr. Preston. large folio, however, with upwards of 300 plates, could not be printed in a corner, and probably it is, at least in part, what it purports to be, "really the work Archimedes." It is possible that the Greek and Latin may be the work of Archimedes and his commenat and the "obsolete German" may be the production of a German editor. The subject appears to be worth of further investigation.

Remedy for Swollen Legs and Grease in Horses.

A writer in the last American Farmer gives the following as a remedy for horses whose legs have become swollen by violent exercise. Take one pound of nitre and half a pound of sulphur, mixed into a mess with molasses. If the disorder is violent, and the legs greatly swollen, give the animal two balls of this composition twenty-four hours, one at night and another in the morning, for the first two days, and but one every day after till the cure is effected. This writer observes: "I do not assert that this medicine will cure a confirmed grease in horses' heels, but it will cure an incipient disorder. Be sure never to apply any grease or ointment to the horses' heels, nothing but a turnip poultice. If the grease be obstinate, nothing but mercury will cure him, thus administered: Give the horse two of Calomel over night, and the next morn a commercial purge. This must be repeated three times, stopping one or two days between each dose; after which give him the nitre and sulphur balls. This process will cleanse him thoroughly."

Death of Lieut. Commandant Wm. H. Cocke.—The Fox, a vessel commanded by Lieut. Cocke was dispatched by Com. Porter on the 6th of March in Porto Rico on business connected with the expedition on the Fox's approaching the Moro (a castle mounting 500 guns) she was fired at, and her command killed by a 42 pound shot. The Spanish apologize for the act, and declare it to have been an unfortunate accident, and it was observed by Com. Porter in the General Orders, published on the melancholy occasion, that "the Captain General of the Island has given the most unequivocal proofs of the most sincere regret that the event has taken place." Every possible mark of respect was paid to the remains of the deceased.

Correspondence between Commodore Porter and the Governor of Porto Rico.—A number of letters have passed between these personages relating to the circumstances attending the death of Lieut. Cocke. It should seem by these that the Governor's apology was not satisfactory. In a letter from Com. Porter dated March 11, and addressed to the Capt. Gen. of Porto Rico, we find the following observations:

"I find your coasts lined with troops since my arrival here. I find reinforcements daily coming in, as I am informed by your order to protect the inhabitants from my resentments. I have found every precaution taken to keep me in profound ignorance of the lamentable occurrence; but these things were all in vain. I saw the insult offered to the flag of my country—I have satisfied your military commanders that their force was despicable compared to that at my disposal, and I have convinced the inhabitants that although they are at my mercy, they will not be made answerable for the offences of an individual."

After some further criminations, Com. Porter observed: "I shall leave the island to-morrow morning with heavy heart, and shall without delay communicate to my government, the melancholy result of my visit here which was intended for the benefit of the civilized world in general."

Russian Claims.—The brig Pearl, Capt. Stevens, of Boston, was lately ordered off the North West Coast by the Russian officer, commanding at Norfolk Sound. After leaving the port, the Pearl was boarded by the Russian frigate Apollo, and documents were presented to Capt. S. declaring the Russian claim to exclusive jurisdiction to extend to latitude 51 N. on the North

East coast of America, northward to Behring's Straits, thence to latitude 27, 50 N. on the Coast of Japan, and that all vessels, of whatever nation, caught within 10 miles, even of those extensive limits, except in case of distress, shall be subject to confiscation, national vessels not excepted.

African Colony.—It is stated in the Baltimore Morning Chronicle, that the American Colonists on the West coast of Africa, are much annoyed by the natives, who, on the 11th of Nov. and 2d of Dec. to the number of 1500, attacked them and killed one man, one woman and one boy, and wounded four others. All intercourse had been cut off with the natives, and the colonists suffered for provisions, and were almost in a state of starvation. Assistance was ultimately sent from the British schooner Prince Regent, and Capt. Laing negotiated a peace, and a prize schooner of 60 tons was presented to the colonists by the commander of a Comorian armed vessel, and it was hoped they would be again interrupted.

Tread Mill.—An English paper gives the following account of the success of this invention: "The Tread Mills in several of the towns of the Southern and Middle Counties are completely out of work—in other words where machinery is attached to them for grinding flour, &c. the overseers are obliged to hire laborers, these terrors to evil doers have frightened away the criminals altogether. In jails where there have been thirty or forty beggars at a time there are now but two or three. The consequence has been a great reduction of prison expense, and a total removal of that nuisance—begging in the streets."

Improved Steam Engine.—A letter has been received in Newburyport from Mr. Jacob Perkins, formerly of that place, in which he states that he had just made trial of his steam engine, and that its success was fully equal to his expectations.

We are informed (says the last number of the London Quarterly Review) on good authority, that in 18 months ending in August last, not fewer than four hundred slave ships had departed from the western coast of Africa, carrying away upwards of 100,000 slaves; nearly one half of these were French, the rest mostly Portuguese.

A merchant in London, Simon Bradstreet, offers, in the London Morning Chronicle, £100 as an immediate contribution to the Spanish cause, and the same sum annually so long as the war lasts, should Great Britain become the ally of Spain.

The Rev. Dr. Gardner, of this city, has been chosen to deliver the next Artillery Election Sermon.

Letters sent by Steam Boats.—By instructions from the Post Master General, all letters and packets of letters, conveyed by steam boats, are to be charged the same rates of postage as letters conveyed over post roads.

The Governor of Louisiana has put his veto on a bill which had passed the Legislature, to prevent Usury—He says, in his objections, that money is a merchantable article, and ought to be used as such.

Honey.—A tree was lately opened near Dennis' Creek, Cape May county, N. J. 5 1-2 feet in circumference, that was found to contain a honey-comb extending 18 feet in length, completely filled with honey: and a paper published at Bridgetown, in the same State, on the 22d Feb. last, says—"A stick of log-cocod was split open a few days since, at the shop of Messrs. Johnston and Sheppard, in this town, in the heart of which was found a honey-comb, fifteen inches long, containing honey of an excellent flavor and in a perfect state of preservation—the comb closely enveloped on all sides with solid timber. How many years have passed since the honey was thus deposited, it is impossible now to discover."

The Mobile Commercial Register states, that within thirteen months the increase of buildings at that place, has been equal to one hundred per cent. in point of value, and that the price of building lots had advanced still more.

A Singular Discovery.—The Detroit Gazette states that a manuscript volume of between three and four hundred pages, was lately discovered by Col. Edwards of that place, under one of his buildings. The book is in a tolerable state of preservation, and is a fine specimen of penmanship. The characters in which it is written are unknown. They are neither Hebrew, Greek nor Saxon, and the only parts of it hitherto intelligible are a few Latin quotations. It is deposited in the Gazette office for the inspection of the curious.

Direct from Com. Porter's Squadron.—The schr. Gleaner, Saunders, 19 days from New Orleans, was boarded on the 10th April, Key West bearing N. distant 6 miles, by a boat from Com. Porter's squadron. The boarding officer informed Capt. Saunders, that the steam brig Sea Gull, the sloop of war Peacock, and the rest of the fleet were lying in Port Allen, Key West; all well. A British sloop of war had captured a piratical vessel, with 60 men, commanded by the notorious Lafitte, who was killed in the action. The pirates hoisted the bloody flag, and cried no quarters—and none were shown, most of them having been killed. Capt. S. has letters from Com. Porter to his friends in the United States.—*New York Er. Post.*

We understand, says the N. Y. American, from a respectable source in Cuba, that news had been received there from Jamaica, on which great reliance was placed, announcing that the former island was immediately to be taken possession of by the British squadron, under the command of Com. Owen.

Purifying Furnace.—Mr. Ralph Bulkley, of New York, has presented a memorial to the Corporation for erecting small purifying furnaces over sewers and canals, which with small coal fires will destroy the foul air and greatly contribute to the health of the city, and add to the value of property in the neighborhood of these sewers.

Piracies.—The editor of the Philadelphia United States' Gazette has had the patience to keep a journal of the piracies committed since the cessation of hostilities between the American government and Great Britain, in 1812. The catalogue contains 3002!

BELLFOUNDER,

The Wonderful Norfolk Trotter, imported July 1822, from England,

WILL STAND THIS SEASON, 1823,

At Twenty Dollars, and One Dollar the Groom. The money to be paid to the Groom at Covering.

THIS celebrated Horse is a bright bay, with black legs, standing 15 hands high; his superior blood, symmetry and action excel those of every other trotting Stallion. He is allowed by the best judges in Norfolk to be the fastest and best bred Horse ever sent out of that County. He has proved himself a sure foal getter, and his Stock for size and substance are not to be surpassed; they are selling at the highest prices of any Horses in Norfolk.

BELLFOUNDER was got by that well known, fast and high formed Trotter, OLD BELLFOUNDER, out of Velocity, which trotted on the Norwich road, in 1806, Sixteen miles in one hour, and though she broke fifteen times into a gallop, and as often turned round, won her match. In 1808 she trotted Twenty-eight miles in one hour and forty-seven minutes, and has also done many other great performances against time.

BELLFOUNDER, at five years old, trotted Two miles in six minutes, and in the following year was matched for 200 guineas to trot Nine miles in thirty minutes, and he won easily by thirty-two seconds. His owner shortly after challenged to perform with him Seventeen miles and a half in one hour, but it was not accepted. He has since never been saddled or matched.

OLD BELLFOUNDER was a true descendant from the original blood of the Fireaways, which breed of Horses stands unrivalled, either in this or any other Nation.

BELLFOUNDER is strongly recommended to the public by the subscriber, as combining more useful properties than any other Horse in America, and will stand, during the season, at his Stable in Charlestown, where all inquiries, post paid, will be attended to.

SAMUEL JAKUES, Jr.

Charlestown, Mass. April 25, 1823.

ENGLISH BULL.

FOR sale or to let, an IMPORTED BULL of 3 1-2 years old, of the Normandy breed (similar to the Alderney, only rather larger sized) and considered the richest Milkers in Europe. This animal is large, and very finely shaped, a brindle color and perfectly gentle. Price, One Hundred and Fifty Dollars; or if well placed, will be let on equal shares for two years.

Also—TWO BULL CALVES, from first rate Milkers, and a FULL BLOOD ALDERNEY BULL, owned by the Massachusetts Agricultural Society—will be sold for Fifteen Dollars each, if taken away immediately.

Apply to JOHN PRINCE, at his Farm on Jamaica Plain. Roxbury, 19th April, 1823.

FRUIT TREES IN THE NURSERY.

HANDSOME budded Peach Trees, but three years from the seed, yet as large in general as can be reasonably desired, may be had at the KENRICK PLACE in Newton, at 33 cts. each. The Nursery contains upwards of twenty of the best kind of Peaches which have hitherto appeared in the Boston market. Also, 2000 Currant Plants of two years growth, on moderate terms, if applied for soon: they should be planted out at four feet distance in rows four feet apart. Also, large English Walnuts, Butternuts, Catalpa, Mountain Ash, &c. Newton, April 26.

PRICES OF COUNTRY PRODUCE, &c.

[Revised and corrected every Friday.]

		FROM	TO
		D. C.	D. C.
ASHES, pot, 1st qual. . . .	ton.	130 00	135 00
pearl do.		175 00	180 00
BEANS, white,	bush	1 00	1 10
BEEF, mess, 200 cwt. . . .	bbl.	9 00	9 50
" " " " " " "		8 50	8 75
" " " " " " "		6 50	7 00
BUTTER, inspect. 1st qual. .	lb.	13	14
" " " " " " "		10	11
" " " " " " "		15	16
small kegs, family, . . .		7	9
CHEESE, new milk		8	9
FLAX	bush	25	30
FLAX SEED	bbl.	7 50	7 62
FLOUR, Baltimore, superfine,		7 50	7 75
" " " " " " "		4 50	5 00
GRAIN, Rye	bush	80	83
" " " " " " "		64	67
" " " " " " "		63	65
" " " " " " "		43	45
HOGS' LARD, 1st sort	lb.	9	12
HOPS, No 1,		10	12
LIME,	cask	1 25	1 50
OIL, Linseed, American . . .	gal.	65	00
PLASTER PARIS	ton.	3 00	3 25
PORK, Navy Mess	bbl.	12 00	12 50
" " " " " " "		14 00	14 50
" " " " " " "		12 00	12 50
" " " " " " "		11 00	11 50
SEEDS, Herd's Grass	bush	2 25	2 50
" " " " " " "	lb.	8	9
WOOL, Merino, full blood, washed		55	65
" " " " " " "		45	48
" " " " " " "		45	55
" " " " " " "		40	45
" " " " " " "		38	40
" " " " " " "		55	60
" " " " " " "		50	55

PROVISION MARKET.

BEEF, best pieces	lb.	8	10
PORK, fresh		6	8
VEAL,		6	8
MUTTON,		5	7
POULTRY,		10	12
BUTTER, keg & tub		15	16
" " " " " " "		16	18
EGGS,	doz.	10	12
MEAL, Rye,	bush	85	90
" " " " " " "		75	80
POTATOES,		37	
CIDER, liquor,	bbl.	1 50	2 25
HAY, best,	ton.	20 00	22 00

RULES FOR ATTAINING LONG LIFE.

The way to long life is like that to everlasting happiness, arduous and difficult. The person who wishes to obtain length of days must avoid too severe bodily exertion, by which he will either bring on himself infirmities or premature age. I can never see but with pain, how the common people keep young children to laborious employments to which their strength is inadequate. Young colts are spared and not set to severe labor till they have obtained a certain age, when their strength is proportionate to the labor required of them; because their owners know from experience that they are spoiled, and become prematurely old and unserviceable unless this indulgence be allowed them. Is it reasonable that we should spare children less than horses? The other extreme is, however, still worse, and if they are indulged in indolence and high living, it cannot be expected that they will "live out half their days."

All too lively sensations, the too free use of the senses, violent passions, excesses of every kind, by whatever name they may be called; severe exertion of the mental faculties, assiduous study, deep meditation and nocturnal vigils, consume the vital spirits, weaken the powers, and bring on premature old age. Indolence and total inactivity, either of the corporeal or mental energies are nevertheless equally to be avoided. Bacon has well expressed this where he says—"The vital spirits ought not to be left to stagnate till they clog up the vessels, neither ought they to be wasted or so expended as to injure those vessels."

A due alternation of sleep and watching is an essential maxim for those who desire longevity. If you sleep too much you collect a superabundance of juices; for sleep feeds the body more, if any thing, than alimentary substances. It is an indispensable rule for such as wish long life to keep the body as near as possible of equal weight. Now by rest it soon becomes heavier, and by fatigue it is rendered lighter. Both militate against the hope of long life.

As to the natural evacuations they must be constantly kept up, but on no account too strongly excited by the use of frequent or powerful medicines. "No cathartics are necessary," says Boerhave; "for there are people of eighty who have never taken any, and yet have always kept their bodies in a proper state." The same remark applies to all artificial evacuations, to blood letting, perspiration, &c.

DEATH OF FATHER WELCH.

The N. H. Patriot gives the following particulars of the venerable Samuel Welch, who died at Bow, at the advanced age of 113 years.

"Mr. Welch spent the early part of his life on the paternal farm at Kingston; afterwards removed to Pembroke, purchased a small tract of land, and settled upon it. About 50 years since, he removed to Bow, where he steadily cultivated his little farm, till the winter of age was gathering around him, and the infirmities of a second childhood warned him of his approaching dissolution. It was not, however, till a hundred summers had passed, that he was compelled to abstain from labor. Mr. Welch had through life been a man of industry, and a lover of retirement. The dangers of Indian warfare had never disturbed him, though the

savages for many years lurked in the vicinity. No accident of evil appears ever to have befallen him,—his long life has been an even tenor of quiet industry and comfort, unmarked by those vicissitudes which distinguish the history of many of our aged people. The grand secret of his extraordinary health seems to have been his uniform temperance, which, with a single exception, secured to him through life a sound constitution, and entire exemption from disease. Till within a very short time, his mental powers were unimpaired, and he could converse with freedom and propriety. With the years long passed he was most familiar; and would relate with ease, circumstances that occurred half a century ago, while with recent events and the present race of men, he was little acquainted. For the last few years, he has had many visitors; the young and thoughtless, to behold the patriarch of a century and an eighth—the old, to commune with a man, to whom they too appeared as youths. His appearance was truly venerable. Time had made deep inroads upon his frame; his locks had been touched by the silvery wand; his eye, originally dark and brilliant, gave evidence of decaying lustre; while his countenance, wrinkled with years, and his frame, tottering and feeble, could not but deeply impress the beholder. He spoke of life as one weary of its burthens, and wishing "to be away." His death corresponded with his life—it was calm and tranquil. And we trust he has gone to taste the rewards of a life spent in quiet virtue and unambitious goodness.

Mr. Welch was the oldest native of New Hampshire. Three, however, have died here at a greater age, viz. Mr. Lovewell, of Dunstable, (father to Col. Zaccheus Lovewell, mentioned in Belknap's N. H. vol. ii, p. 233) aged 120; William Perkins, of New Market, who died in 1732, aged 116; and Robert Macklin, of Wakefield, who died in 1789, aged 115. It may be mentioned, in favor of the general salubrity of our climate, that within a century about one hundred persons have lived in New Hampshire to the age of a century and upwards. We doubt whether any other state in the Union can present so many instances of longevity.

Santieul, the French poet, returning home one night to St. Victoire, at 11 o'clock, the porter refused opening the door, saying he had positive orders to admit no one at that hour of the night. After much altercation, Santieul slipped half a louis d'or under the door, and he obtained immediate entrance. As soon as he got in, he pretended to have left a book upon a stone on the outside, on which he rested himself while he waited for the opening of the door. The officious porter animated by the poet's generosity ran to get the book, and Santieul immediately shut the door upon him. Master porter, who was half naked, knocked in his turn, when the poet started the same objection as he had done. Aye, but master Santieul, I let you in, you know, very civilly. So will I you as civilly, said Santieul; you now the price; in or out is the word, and I can dally no longer. The porter, finding he would have to sleep in the street, half naked, and run the risk of losing his place, slipped the piece of gold under the door, saying, I thought a poet's money would not stay long with me, and accordingly purchased his admittance.—*U. S. Gazette.*

PROPOSALS,

FOR PUBLISHING A VOLUME ENTITLED

COMPENDIUM OF AGRICULTURE, or the Farmer's Guide in the most essential parts of Husbandry and Gardening; compiled from the best American and European publications, and the unwritten opinions of experienced cultivators.

Now is the time when agriculture is making rapid strides towards perfection, than appear to have been for ages. This may be attributed in some measure to the Agricultural Societies established in Switzerland, France, Britain and America. But we know of no work accessible by farmers in general, that contains a good concentrated account of these valuable modern improvements. The work proposed, therefore, has occupied the attention of the Editors a considerable time, and still demands the utmost assiduity in collating and condensing for the press—so that no of the recent improvements in rural economy should be omitted that might render it interesting and serviceable to the farmers of this country.

The Editors, (concerned themselves in rural affairs) fully apprized of the importance of agriculture, the first and most indispensable of arts, are determined spare no pains to render it a really useful book to those who know how to appreciate such works.

The volume, to contain about 300 pages, 12 mo. one dollar in boards, will be put to press when a number of subscribers shall be sufficient to encourage printing.

Those persons who have obtained subscribers for the above work, are requested to leave their names at the office of the Manufacturers' and Farmers' Journal, the first of July next. *Providence, April, 1823.*

THE STATISTICAL ACCOUNT OF SCOTLAND.

DRAWN up from the communications of the Ministers of the different parishes, by Sir JOHN S. CLAIR, Bart. 21 vols. 8 vo. complete, only one copy will be sold at the very reasonable price of \$50. Among 58 heads of inquiry addressed to each minister (the whole being too numerous for an advertiser as a guide for their reports, are—Name, and its original description of the soil and surface; climate and diseases; instances of longevity; mode of cultivation implements of husbandry; manures; seed time at harvest; quantity and value of each species of crop; total value of the whole produce of the district; wages and price of labor; manufactures; man of kelp; lices; roads and bridges; state of the Church, stipend &c. number of the poor; parochial funds and the management of them; schools, and scholars; number of souls; cattle, nature and value; sheep do.; swine do. coal and fuel; antiquities; character of the people advantages and disadvantages; means by which the situation could be meliorated. "No publication equal information and curiosity has appeared in Great Britain since Doomsday Book; and that, from the ample and authentic facts which it records it must be resorted to by every future Statesman, Philosopher and Divine, as the best basis that has ever yet appeared for political speculation."

Also—The Complete Grazer, &c. 1 vol. 8 vo. American Orchardist—Cully on Live Stock—Farmer's Assistant—Farmer's Manual—American Gardener—Villa Garden Directory—Cox on Fruit Trees, &c. &c. For sale by R. P. & C. WILLIAMS, Cornhill Square Boston. *April 12.*

NEW GARDEN SEEDS.

FOR sale, by GEO. MURDOCK, No. 14, Market Square, a great variety of English and American GARDEN SEEDS, of the last year's growth; consisting of early Frame, Hotspur and Charlton Pease; early and late Cabbage; early and late Cauliflower; Sweet Marjoram, Thyme, &c. with every other Seed suitable for a Kitchen Garden. Also, 40 lbs. Mangel Wurtzel or Scarcity—100 lbs. Ruta Baga or Swedish Turnip—a quantity of Armack or Carrot. *March 29.—6w*

TERMS OF THE FARMER.

Published every Saturday, at THREE DOLLARS per annum, payable at the end of the year—but those who pay within sixty days from the time of subscribing will be entitled to a deduction of FIFTY CENTS.

No paper will be discontinued (unless at the discretion of the Publisher) until arrearages are paid.

Complete files from the commencement of the paper in August can be furnished.

NEW ENGLAND FARMER.

PUBLISHED BY THOMAS W. SHEPARD, ROGERS' BUILDINGS, CONGRESS STREET, (FOURTH DOOR FROM STATE STREET.)

VOL. I.

BOSTON, SATURDAY, MAY 3, 1823.

No. 40.

FACTS AND OBSERVATIONS RELATING TO AGRICULTURE & DOMESTIC ECONOMY.

BY THE EDITOR.

ON MAKING CATTLE VERY FAT.

We believe that farmers and others sometimes "miss the matter" as Hudibras says, by using a great deal of pains, and wasting their produce in making cattle very fat. "Some farmers have given up butchers, who pride themselves on selling very fat meat, finding that it does no way in feeding their family, so much it was rejected."* In Great Britain prize cattle were formerly fattened till they were scarcely fit to eat, and the meat had no more value than hog's lard. Sheep were likewise dressed with oil cake and gin till the poor things could not rise alone, and needed as much waiting on as a superannuated Duchess. They were frequently stuffed and stimulated till it became necessary to cut their throats to save their lives, that is to say, nothing but a butcher's knife could prevent them from dying of dropsy. A man to procure such food need have the stomach of a Turk, and the digestive powers of an ostrich, to can make a meal on ten penny nails.

Meat, however, reasonably fat is more profitable, as well as more nourishing than lean meat. "to digest this oily matter, there are required, on account of its difficult solubility, a good bile, much saliva, and a vigorous stomach; consequently none excepting those who are in the most vigorous state of health, or who are employed in hard labor can digest it; the bone also gains but little in the fattening, and the other ossa become proportionally less, as the animal becomes more fat, it is best to have cattle well fattened, but not converted into a mass of matter as unpalatable and unwholesome as whale oil. "A coarse and heavy-fleshed ox which would require a very long time, and much good food to fatten, may be slaughtered rather lean. It is, however, so much the extent of fat, as the want of a sufficient quantity of lean flesh of which the consumer complains; for it cannot be doubted, that the lean flesh of a fat animal is superior in quality, and contains more nourishment than any other meat."†

THE PROPER AGE OF CATTLE FOR FATTENING.

"Animals arrived at their full age, at least full size, are well known to be the most proper to take on fat, since nature is not then impeded by a double process. Young animals of great substance, and well formed, will likewise fatten to good profit; but they are generally adapted to the gradual plan of grazing, which is prolonged eighteen months or two years. The grazier thus reaps the profits of their natural growth or increase in stature. There is another species of increase, technically called *growth*; it is the spread or extension of muscular flesh in full aged animals, of large bone and capacious frame.‡

"Tallow is formed from the surplus nourishment given to animals, beyond what is necessary for their more physical development; whence it follows that those which have not obtained their full growth are fattened with difficulty, and only by extraordinary means. Calves, for example, can only be fattened by great quantities of milk, to which must often be added eggs, barley or oat meal, or the flour of beans or peas; and with all this abundance and selection of food, they yield little if any interior fat or tallow. Whereas oxen, at six years of age, with correspondent treatment, give large quantities of that article. Old cattle are also, from loss of teeth, debility of stomach, or other internal disorganization difficult to fat. These facts sufficiently indicate what, on this head, ought to be our practice; to fatten cattle as soon after they have obtained their growth as possible. Oxen generally attain their growth at five or six years, and sheep and hogs at two."*

FOOD FOR FATTENING CATTLE.

It has been often said, and we believe correctly, that it is not profitable, generally speaking, to fatten cattle on any kind of grain. Lawrence, on neat cattle, asserts that "Corn [by which is meant oats, barley, rye, peas, beans, wheat, &c.] cannot be used in the fattening of bullocks and sheep, except in seasons of superabundant plenty." Even Indian corn is often too costly a species of food to be used solely or chiefly for the profitable fattening of cattle, and grass, hay or roots are said to be the materials which true economy requires.† But we have heard it asserted that beef fattened on oil cake, raw potatoes, turnips, &c. will not be so firm, nor of so good a quality, other things being equal as that which is fattened on Indian corn. If that be true it might be well to commence with turnips and potatoes, and give the animals richer food as they increase in fatness. Frequent changes of diet will prevent the appetite from being palled, and accelerate the process of fattening. An able writer observes that "With respect to feeding, the first rule is, to give little at a time and often; because experience has shewn that animals that eat much in a short time do not fatten so well as those which eat less but more slowly and frequently. The second rule is to begin the course with cabbages and turnips; then to employ carrots and potatoes, and lastly, Indian, oat, or barley meal, the marsh bean, or the grey pea. These aliments ought to be varied five or six times a day, and oftener if convenient; and instead of always reducing them to flour, there is an advantage in sometimes boiling them. A little salt, given daily, is very useful."* It would prove very useful to try experiments on this subject, and publish their results. Let a number of cattle of similar or the same breed, age, propensity to fatten, as ascertained by handling, &c. &c. be fattened at the same time. Let one be fed entirely on potatoes raw, a second on the same root steamed or boiled, a third be made

one half, or two thirds fat on potatoes, and his fattening completed with Indian corn; a fourth be fattened on Indian corn, or corn meal; a fifth be fed with a mixture of all these kinds of food, given together in the same mess, or in different messes. The first feed in the morning for the last mentioned bullock, might be a small quantity of potatoes, or turnips, the second ruta baga, or carrots, or mangel wurtzel, or parsnips, which are highly recommended. Then as the last course of the day's feast give Indian meal, or other food the richest you have. It would be well, likewise, to try the virtues of sweet apples, which would probably prove a valuable food for cattle. The most important objects of such experiments, however, would be to ascertain whether the beef of cattle fattened on potatoes, or other roots raw or steamed is equal in quality to that which is fattened on Indian corn. If not, whether an ox may not be made nearly fat enough for profit on roots, and his fattening completed on corn, and the flesh be as good as if he had been fattened wholly on corn. And if an ox partly fattened on roots, and his fattening completed on corn gives as good beef as one wholly fed on corn, the question arises *how long a time* will it require to give the beef its good qualities arising from the corn? We know as respects swine that farmers will make them partly fat on any thing which they will devour, and then feed them for some time before they are killed with Indian corn or meal to "*harden the flesh*" as they express it. And perhaps the same process will answer as well for beef cattle. Some farmers say that the red or La Plata potatoe given raw to swine, makes as good pork as that which is corn fed. Others say that any kind of potatoe, if steamed or boiled, will make as good pork as can be made of corn. If this be true of pork, why not of beef?

It is a truth which has been confirmed by repeated experiments that food for swine fermented and become a little acid will go farther and fatten them faster than *sweet food* of the same quality. But it is not, we believe, generally known, that *acid food* is most valuable for neat cattle, in certain circumstances. Mr. Bordley, however, asserts that "Oxen made half fat, or in good plight, on grass or turnips, are then very highly and soon finished in France, upon a *sour food* thus prepared: *rye meal*, (buck wheat or Indian corn meal may be tried) with water is made into a *paste*, which in a few days ferments, and becomes sour; this is then *diluted* with water, and *thickened with hay*, cut into chaff, which the oxen sometimes refuse the first day, but when dry they drink and prefer it. All the husbandmen are decidedly of opinion they fatten much better because of the *acidity*. They give it thrice a day and a large ox thus eats 22 lbs. a day. Maize [Indian] meal, or maize steeped till sour should be tried. This sour mess is given during the last three weeks of their fattening, and they eat about 7½ bushels of meal, value four dollars."*

* Scotch Husbandry, vol. 1, p. 109.

† Willich on Diet and Regimen.

‡ Code of Agriculture, p. 91.

§ Lawrence on Neat Cattle.

* Treatise on Agriculture, first published in the Albany Argus.

† See a communication for the N. E. Farmer, signed 7. published page 234.

* Care should be taken that the process of fermentation be not carried too far. The paste should not become mouldy, nor the liquid food in the slightest degree putrid.

We think that there is reason in waiting till animals become "half fat," or in "good plight," before they are fed with acid food. Acids or alcohol create appetite by stimulating the stomach, but if long continued, they weaken the digestive powers, and in time totally destroy the tone of the stomach. The animal will then be visited with what in a human subject would be called dyspepsia, or a want of the power of digestion, fattening him will be out of the question, and he will be worth but little more than the value of his hide. The constitution of an ox may be destroyed by excessive eating, or what may be called high living, and it is only towards the close of his days, near the last stage of his preparation for the butcher that he should be allowed to become an epicure, and indulged with as much as he can eat of rich or high seasoned food. Store keep should be neither too rich nor too abundant; and if an ox is once made fat, and then loses his flesh, he is like one of Pharaoh's lean kine, the more he devours the leaner he becomes. If young cattle are kept in rich pastures in summer, and poor fodder in the winter, sometimes stuffed, at other times starved, they lose their disposition to fatten. To such cattle Mr. Lawrence alludes, when he says, "It is extremely imprudent, indolently to continue at high keep, animals which do not thrive; I advert chiefly to individuals, with which the first loss is always the least." "Stock cattle," says Mr. Bordley, "are kept; others are fattened. The feeding is different. Cattle *kept* need no kind of grain, nor even hay, unless to cows about calving time. *Straw* with any *juicy* food, such as roots or *drank*,* abundantly suffices for keeping cattle in heart through winter, provided they are sheltered from cold rains. Mr. Bakewell kept his fine cattle on *straw* and *turnips* in winter." "A *drank* for keeping may be made thus: roots, chaff or cut straw and salt, boiled together in a good quantity of water; the roots cut or mashed. The cattle drink the water and eat the rest. *Drank* for fattening cattle, thus: roots, meal, flax seed, chaff or cut straw and salt, well boiled together in a plenty of water. If given warm, not hot, it is better." The same author says, "Hay, meal, and linseed jelly with *drank*, must be excellent food in stall-fattening. Linseed jelly is thus made: seven parts of water to one of flax seed steeped in a part of the water 48 hours; then add the remaining water cold, and boil gently two hours, stirring constantly to prevent burning. It is cooled in tubs, and given mixed with any meal, bran or cut chaff. Each bullock (large) has two quarts of *jelly* a day; equal to a little more than one quart of seed in four days."

* The word drank is given us by Count Rumford for distinguishing this composition from simple water.

FOR THE NEW ENGLAND FARMER.

PAINTING.

I believe it is a general practice for people to do their painting some time during the three summer months; but repeated experiments have been made within a few years, which have proved that a house painted late in autumn or in the winter, will hold the paint *more than twice* as long as one painted in warm weather.

The reason is obvious; for when paints are applied in cold weather, the oil, with the other ingredients, form a hard cement on the surface of

the clapboards, which cannot easily be erased; whereas, a building painted (as usual) in the heat of summer will soon need a new coat; for the heat causes the oil to penetrate into the wood and leaves the other component parts dry, which will soon easily crumble off.

A SUBSCRIBER.

FOR THE NEW ENGLAND FARMER.

UNBLESSSED EFFECTS OF SLAVERY AND PAUPER MONEY.

Extract of a letter from a distinguished inhabitant of Missouri, well informed, and high in office, to a gentleman in this vicinity, dated Jan. 1823.

"The sapient legislature of our state has, under the name of 'Relief Laws,' virtually enacted that the community shall be trammelled, hand-cuffed, and consequently *poor*, for ten years to come! and, besides, although it is one of the fairest regions under the sun, yet the *curse of slavery* is entailed upon it forever; this, in the very nature of things, in our latitude, *must keep* the people *poor*; for, first, in a community where there are *slaves*, whites are always imperious, dissolute and *IDLE*; but, second, our climate yields no produce sufficiently profitable to enable the white man to live in idleness himself, and support his slaves to do his work for him. Now, these two things put together, must make us a poverty-struck state forever. Specie has disappeared from among us, and the 'Bills of Credit' of the state, issued in the name of 'Loan Office Certificates,' are passing at a discount of 50 to 60 per cent.

"The produce of the soil is very low—Corn say 20 cts.—Pork, 2 to 2½ cts. and in some parts of this state 1 to 1½ cts.—Beef, 2 to 3 cts.—Wheat, 50 cts. On the other hand, groceries are comparatively very high—Sugar, 25 cts.—Coffee, 50 to 62½ cts.—Salt, (at present) \$3 per bush.—Tea, (Hyson) \$3 to 3½. In the winter of 1819-20, Brown Sugar was sold in St. Louis at 50 cts. per lb. and Salt at \$6 per bushel."

The following, with some other pieces from the pamphlet containing it, was intended for publication more than six weeks since, but was mislaid, and slipped our memory. We hope, however, that no bad consequences will arise from our carelessness, as articles of this kind are not like the current news of the day which derives its principal interest from its novelty.

From the last Pamphlet published by the Essex Agricultural Society.

MR. BARTLET'S FARM.

The farm in Methuen belonging to William Bartlet, Esq. has been under my direction five years; Mr. Bartlet has all the income from said farm, and pays all the expenses.

Said farm contains about two hundred acres of land, and is divided into twenty lots, all which are fenced with a substantial stone wall; 12 of the lots have been cultivated, and have produced wheat, rye, oats, flax, Indian corn, potatoes, English and Swedish turnips, white beans, timothy, herds-grass and clover hay; 8 lots are at present in grass for mowing; 5 lots for pasturing; one lot is woodland and pasture for young cattle; one lot is an orchard of apple trees, in good bearing; and 5 lots are under culture for corn, oats, potatoes, English and Swedish turnips, and winter rye, with a part of some lots for flax and white beans; besides a garden of veg-

etables for summer and winter use for the family.

The system of rotation of crops is five year. The quantity of manure made upon the farm in a year is about 200 ox cart loads, of for bushels each: this manure is made by the swine and cattle—about 60 loads by the swine the cattle yard is cleaned up every morning and the manure put into a heap under a cow from the sun and rain. The swine have the shavings of the fields and brooks, the pomace apples, the weeds and other materials thrown to them during the summer and autumn, and are kept in their enclosure all the time, and in the spring the yard is cleared. The neat cattle are kept in the barn-yards all the night in the summer season; and in the barns and yards all the winter season; the water for their drink being brought into the yards by an aqueduct.

About 5 tons of ground Plaster of Paris for each year, have been used for several years past, as a manure upon the grass land, and the corn and grain for sowing have been mixed with it.

The product of the farm some years has been greater than others. It produced in 1821 the following articles:

35 barrels cider, 600 bushels corn, 700 bushels potatoes, 40 bushels English turnips, 40 bushels white beans, 475 lbs. flax, 75 bushels rye, 320 bushels oats, 350 lbs. butter, 2000 lb. cheese, 1000 lbs. pork, 40 cart loads pumpkin, 75 tons English hay, 10 cart loads fodder.

And the present year, 1822,

70 tons English hay, 10 tons run hay, 30 bushels oats, 1200 bushels potatoes, 300 bushels Indian corn, 500 lbs. flax, (this by estimation, not being cleaned) 1100 bushels English turnip, 300 bushels ruta baga, 100 barrels cider, 40 bushels winter apples, 20 bushels winter pear, 2400 lbs. cheese, 400 lbs. butter, 6 bushels white beans, 12 calves, sold at 7 dollars each, 4 oxen, sold for 294 dollars.

The stock of the farm consists at present: 15 cows, 10 oxen, 3 yearling heifers, 1 sprit calf, 1 late calf, 2 calves for butchering, 1 swine, 34 sheep and lambs, and 1 horse.

The labor on the farm is done by myself and wife, with 2 men and 1 boy, and 2 young women or girls: but in the most hurrying time particularly in getting in hay, as many hands are employed to cut and cure it as can work to advantage. And the only drink used by the laborers, both transient and stationary, is produced by the farm, viz. beer and cider.

JONATHAN MORSE, 2d.

Methuen, September 28, 1822.

N. B. This year's produce is added to the statement since the description was made out. Newburyport, November 18, 1822.

NOTE. By the "shavings of the brooks and fields," Mr. Morse means "the grass and weed which grow in the brooks and round the edge of the fields;" which being unfit for fodder are thrown to the swine.

The "ten cart loads of fodder" were the produce of the field of oats; which being seeded with herds-grass and clover, and these, after the oats were harvested, growing luxuriantly the field was mown (the oat stubble and young grasses) and yielded (as Mr. Bartlet has since stated) "ten bulky loads of excellent fodder almost equal to second crop hay."

From the American Farmer.

CATTLE SHOWS.

Every week lately has brought us hand-bills setting forth the premiums to be distributed during autumn by the Eastern agricultural societies. From those there appears to be no abatement of their zeal, and great improvement in the application of it. In this paper we have copied the list of premiums offered by the Essex Agricultural Society, signed and probably prepared by the venerable PICKERING—because it departs materially from what seems to have been the leading principle in all the agricultural societies of the country—that of offering premiums chiefly for certain specific articles of husbandry, instead of the combined improvements of entire farms. It will be conceded that we ought not to publish all these lists—for, constitutions, they are very much alike, and contain generally little that is new and important; not so, however, with the one in question—and we have therefore inserted it for the consideration of the Maryland, and other Agricultural Societies. Moreover, the reasons given for drawing attention, and for offering their best rewards, to new objects, serve at the same time to convey practical information which must prove acceptable to most farmers. There is, however, one thing in this scheme of premiums we regret—and that is, that they are offered in—money instead of pieces of plate, in a specific form for domestic ornament or use. There seems to us to be all imaginable difference in the sentiment which must accompany the two forms of reward—with the idea of money, “filthy lucre,” it is difficult to associate that of generous and patriotic pure spirit, rivalry, which conquers without force or passion, and defeats without inflicting a wound. Money is the common boon of vulgar competition in the lowest grades of human exertion and strife. The common stimulus provided for the apprehension of the runaway slave and the house breaker is “twenty dollars reward”—whereas, when the premium is given in the shape of a can or a goblet, a spoon or a plate, it may be placed on the sideboard or mantel, and becomes an object for exhibition and harmless boasting to our friends—and passed down, from one generation to another, as a relic of heir-loom in the family—a mark of affection in family bequests—some simple inscription serving to chronicle the merits or the enterprize for which it was originally bestowed. For ourselves, we confess that we never feel more self-satisfaction than when we are displaying to our agricultural friends, the little silver can, standing on cow’s feet—“Presented to S. by the Maryland Agricultural Society, importing Shepherdess and White Rose: 1823”—and the silver pitcher, with a engraved likeness of Champion on its side—ten times the cost of them in money would be valueless in comparison. For every premium, however small, some appropriate utility—and we take occasion to repeat—offer of our services to have them prepared. Mr. Warner, who has heretofore supplied me on the most reasonable terms, appropriate pieces of plate, by order of several societies to whom his work has given entire satisfaction. All we desire is to experience the pleasure of aiding in giving the best direction to the

bounty of those who wisely patronize agricultural emulation. It should be remembered that all Orders for premiums in this shape should be given several months before hand, to give time for their preparation.

The Premiums offered by the Essex Agricultural Society were published in the New England Farmer, No. 37, page 289.

From the American Farmer.

RUTA BAGA.

Worcester, (Mass.) April 1st, 1823.

“In reference to the ruta бага, I regret to say, that I am almost alone in this part of the country, in its cultivation. The well established fact, that it communicates an unpleasant flavor to milk, when fed to cows, has brought it into general disesteem. Still I regard it as the most valuable root for husbandry culture. It has been particularly useful to me, in the keeping of swine; and added to my own observation, I have the authority of my farmer for the assurance, that it is equal to one half of their keeping in summer, with the most inconsiderable expense only of labor. My course is to sow the seed thick, and as soon as the plants are of the usual size to set, to begin thinning them out, and giving the green plants, which are pulled, to the swine. The field may thus be gone over several times during the season, leaving the plants at last as thick as they will well ripen by the harvest time. The swine being thus fed at first, became fond of the roots, and will continue to eat them greedily through the winter. Within a few days I have witnessed a large basket of them from the cellar thrown into the pen, and apparently as readily devoured, as would have been so much corn. The hogs are in good condition, and these turnips have been their principal food. My sheep also are much improved by them, especially about the time of yearning. These facts are the rather stated, as proof that the seed which you kindly sent, will be appreciated by at least one individual, and with the thanks of the society for your attention, I pray you to accept mine for the value of the present.

With much respect,

I am your obedient servant,

LEVI LINCOLN,

Cor. Sec’y W. Ag. Society.”

PERFUMES A PREVENTIVE AGAINST MOULDINESS.

Dr. MacCullah, of Edinburgh, has published a paper in the Philosophical Transactions of that city, in which he points out, that all essential oils possess the property of preventing the growth of mould.

Ink, paste, leather and seeds, are among the common articles which suffer from this cause, and to which the remedy is easily applicable. With respect to articles of food, such as bread, cold meats, or dried fish, it is less easy to apply a remedy, on account of the taste. Cloves, however, and other spices, whose flavors are grateful, may sometimes be used for this end.

The effect of cloves in preventing the mouldiness in Ink, is indeed generally known; and it is obtained in the same way by oil of lavender, in a very minute quantity, or by any other of the perfumed oils.

Leather may be preserved in the same manner. The same essential oils answer the purpose. The cheapest, of course, should be se-

lected; and it would be necessary to try oil of turpentine, for this reason.

It is a remarkable confirmation of this circumstance, that Russian leather, which is perfumed with the tar of the birch-tree, is not subject to mouldiness, as must be well known to all who possess books thus bound. They even prevent it from taking place in those books bound in calf, near to which they happen to lie. Collectors of books will not be sorry to learn, that a few drops of any perfumed oil will insure their libraries from this pest.

With regard to *paste*, Dr. M. prefers resin to alum as a preservative; but lavender, or any other strong perfume, such as peppermint, anise, bergamot, are perfectly effectual for years, however the paste is composed. That which the Dr. himself employs in labelling, &c. “is made of flour in the usual way, but rather thick, with a proportion of brown sugar, and a small quantity of corrosive sublimate. The use of the sugar is to keep it flexible, so as to prevent its scaling off from smooth surfaces; and that of the corrosive sublimate, independently of preserving it from insects, is an effectual check against its fermentation. This salt, however, does not prevent the formation of mouldiness. But as a drop or two of the essential oils above mentioned is a complete security against this, all the causes of destruction are effectually guarded against. Paste made in this manner, and exposed to the air, dries without change to a state resembling horn; so that it may at any time be wetted again, and applied to use. When kept in a close covered pot, it may be preserved in a state of use at all times.”

He proceeds.—“This principle seems also applicable to the preservation of seeds, particularly in cases where they are sent from different countries by sea, when it is well known that they often perish from this cause. Dampness, of course, will perform its office at any rate, if moisture is not excluded; yet it is certain, that the growth of the vegetables which constitute mould, accelerate the evil; whether by retaining moisture, or by what means, is not very apparent. This, in fact, happens equally in the case of dry rot in wood, and indeed in all others where this cause operates. It is a curious illustration of the truth of this view of a remedy, that the aromatic seeds of all kinds are not subject to mould, and that their vicinity prevents it in others with which they are packed. They also produce the same effect daily, even in animal matters, without its being suspected. Not to repeat any thing on the subject of cookery, I need only remark, that it is common to put pepper into collections of insects or buds, without its having been remarked, that it had the same power of keeping off mould, as of discouraging or killing the *ptinus omnivorus*, or other insects that commit ravages in these cases.

“In concluding these hints, I might add, in illustration of them, that gingerbread and bread containing caraway seeds, is far less liable to mouldiness, than plain bread. It will be a matter worthy of consideration, how far flour might be preserved by some project of this kind.”

To cure Chilblains before they are broken.—Wash them in water as hot as you can bear, and dry them with a cloth; rub them with spirits of turpentine before the fire and keep them warm.

From the Boston Daily Advertiser.

THE SEASON.

We have experienced, this Spring, something of the Canadian and Siberian seasons. It is well known, that in those countries, vegetation seems to indemnify itself for its retardation in Spring, by extraordinary and rapid efforts—and the harvest of grain is as early in those countries as in more Southern latitudes. The last year (1822) we sowed peas, and planted early potatoes on the sixth of March—which we remarked to have been more early, by 15 days, than we had ever been able to perform the same operations for 17 years preceding. This year we had nearly two feet of snow on the ground on the first of April, and we were not able to commit our early seeds to the ground till the 8th of April, a difference of 30 days. Yet on the 20th of this month, we find the natural progress of plants (not affected by cultivation) one day more forward than they were last year, and nearly a week more forward than during an average of seasons for the last 17 years.

In the year 1815 Apricots opened their flowers on May 1st.

In 1816 on the 29th of April.

In 1822 few Apricot blossoms were opened on the 21st of April.

In 1823 an equal number of Apricot blossoms were fully expanded on the 20th of April.

The Hyacinth gave a correspondent result, and fruit trees generally correspond in forwardness to the plants just mentioned. Generally speaking the season is as forward as it ever was on the most favorable years, so far as it depends on the progress of nature. The labors of man have however been suspended, in a very unusual degree, and much more exertion will be required in the same space of time, to perform the ordinary spring duties of the Farmer and the Gardener. The ground is in a fine state for cultivation. The tender grasses have been admirably protected against those heaving frosts which throw the roots out of the ground, and thus disappoint the hopes of the husbandman. The warm weather has not been accompanied with scorching rays, or drying winds, and the season, so far as it has yet advanced, promises an ample indemnity for the unpropitious prolongation of winter, and the decay of agricultural exertion. We may derive from this experience, a lesson of patience, and a sentiment of confidence in the wisdom and protecting Providence of the Great Ruler of the Seasons.

From the American Farmer.

BURNING SOD.

That agriculture in Maryland, has not proved profitable generally, is demonstrated by the desertion of many from our lands, and by the poverty of cultivators, although taxation is very light, and the owners possess slaves, and although almost every farm is near a navigable stream. What reason can be assigned for this, but that our land being worn out, will no longer yield as formerly. Corn and tobacco, have been our principal crops, and these require four ploughings, to bring them to maturity. Our rains fall very heavily, and the oftener the ground is turned over, the more the fine particles of mould are of course washed away—few farmers keep up their cattle, and of course little manure is made.

For many years, we have been leaving out old fields, cutting down our woods, and cultivating virgin soils, but these being now exhausted, families have been compelled to emigrate.

Mr. Beatson's pamphlet on clay or sod burning, has come most appropos, and promises to restore our lands cheaply, and expeditiously—I commenced his practice last year, and all my neighbors remarked, what benefit my corn received, by only putting one or two handfuls of burnt sod in every corn hill, before I put in the corn. I take up my pen now to inform you, of one experiment which has afforded me great encouragement, and which has determined me to devote the labor of two hands, exclusively, to clay or sod burning. On a very poor spot, I perceived the corn only about two feet high, whilst the adjoining corn was five feet; having been told, that manure, when placed between the corn rows, would improve the crop, as the roots would shoot into it when the corn began to tassel, I run a furrow between each row, and put in, and covered over the burnt sod—the result was, that this poor corn, became as good as all the rest. In the fall I ploughed in my wheat, and now the wheat where I put in the burnt sod, is so verdant and luxuriant, that you may distinguish it from the rest of the field, half a mile off—my neighbors have been surprised at the great difference, and calculate that it will yield twice or thrice as much as the adjoining wheat, although the soil last year was evidently richer.

The average of corn crops last year, on unmanured, and commonly cultivated fields, did not amount I fear to more than ten or twelve bushels to the acre, the cost of four ploughings and planting, cannot I think be estimated at less than seven dollars; if the price of corn be three dollars and a half per barrel, the cultivator is nearly repaid for his labor, and nothing remains for wear of animals, and of implements, and for contingencies.

I calculate that two hands can make 140 bushels of burnt sod in two days, which are the most that can be advantageously put upon an acre—say that these 140 bushels, only double crops of corn, wheat, clover, &c. for only six years, and then consider the profit. To make it clear, I will put down the expense and profit in an account.

ESTATE	Dr.	ESTATE	Cr.
To two hands for two days,	4	1st year, two barrels more corn,	7
Scattering the burnt sod, and hauling stumps and sticks,	3	2d year, ten bushels more wheat,	10
	—	3d year clover	10
Days	7	Add the three following years,	30
			Dollars 57

Let every one buy Mr. Beatson's book, and he will see, that my calculation is very moderate, and that it might be doubled on the credit side.

When I consider how many stumps and sticks are left to rot in the woods, and to be washed into our rivers by rain, which might be converted into ashes, and to useful sod burning, I sigh at the loss of riches by ignorance—of this mode of making manure.

Three or four free negroes, who have used it on tobacco, and in their gardens by my advice, tell me that it has astonished them—my neighbor an excellent English farmer, has long

practised it with success, and in gardening, had last year several stalks of corn, in his garden, with six or seven ears. Think how restoring worn out soils, we can support our cattle, &c.—and thus make stable manure, and then estimate the profit to land holders throughout Maryland.

When I cut down my wheat, I will give you a statement of the produce from the land manured with burnt sod in the rows, and from the adjoining not so manured. I hope that emigration will henceforth cease, till we are so populous, and that our lands will rise in value and that prosperity will be exhibited by comforts and cheerfulness, instead of long faces, complaints and sickness, which are now produced by bad harvests. Your's respectfully,

THOMAS LAW

P. S. I have not a fixed kiln, but carry stumps and sticks to the place where I plough up the clay, to cover the stumps and sticks with it, and after setting fire to the sticks, I continue throwing on clods wherever the smoke comes out. The clods ought to be dry.

Extract from Bordley's Husbandry.

In many parts of America are idle imprudent people, masters of farms, who spend their time in taverns or other places of wasteful amusement: any where rather than at home. These haunts are at the expense of their domestic and true happiness. Sooner or later they bring on them debts, wants and grating claims of creditors. Such a people can never be brought to soil cattle, or at all to improve their families. Where is solid comfort to be found if not at home? The meanness, the selfishness and folly of these husbands, fathers or masters, conspicuous, degrading and shameful; who, regardless of wife, child and dependents claim their protection, their affections and their affections, and even regardless of the true interest of their precious selves, fly from their own pineness in the moment when they mount their horses and hurry to the tavern, the race, the pins, billiards, excess upon excess of toddy, the most nonsensical and idle chat, accompanied with exclamations and roarings, brutal foreign to common sense and manners as mind of wisdom can conceive of depraved. Had these men, so deficient in character, been trained but a few years among the orderly thoughtful good farmers of some neighborhood, they would have learnt valuable lessons for conducting their farms, themselves their domestic affairs, greatly to their comfort and advantage, and to the comfort due to their families and dependents, to whom they are more than they are accustomed to feel for them. There are on the other hand, those with industry aim at providing for their families but it is not with an honest mind and fair reputation. The strength of these is in cunning: If indeed they wish to be perfect that detestable of all qualities, they need not far from home; unless for the sake of exercising the satanical talent with some variety. They might then associate with the vulgar class of people distinguished for more than this base quality than of provident industry, fairness, and honest manly candor.

Boasting.—A man who boasts of his honesty, woman of her chastity, are both to be suspected.

NEW ENGLAND FARMER.

SATURDAY, MAY 3, 1823.

The Farmer's and Gardener's Remembrancer.

MAY.

PASTURES.—Be so good as not to turn your cattle into your pastures till they can get what is called a "good bite." If you let them in too early they will tread your land into hotch potch, or salmagundi, destroy the sward, and "do more mischief than a little." Dr. Deane said that the 20th of May is early enough for our climate, and we believe it is quite as well, where the farmer can afford it, to keep his working oxen and horses to hay or other stall feed at least till the first of June. It is not right to turn all sorts of cattle into pastures promiscuously. "Milch kine, working oxen, and fatting beasts, should have the first feeding of an enclosure. Afterwards sheep and horses. When the first lot is thus fed off, it should be shut up, and the dung that has been dropped should be beat to pieces and well scattered. Afterwards the second pasture should be treated in the same manner, and the rest in course, feeding the wettest pasture after the driest, that the soil may be less potched.

"Something considerable is saved by letting all sorts of grazing animals take their turns in a pasture. By means of this nearly all the herbage produced will be eaten; much of which would otherwise be lost. Horses will eat the leavings of horned cattle; and sheep will eat some things that both the one and the other leave.

"Let the stock of a farmer be greater or less, he should have at least four enclosures of pasture land. One enclosure may be fed two weeks, and then shut up to grow. Each one will recruit well in six weeks; and each will have this time to recruit. But in the latter part of October, the cattle may range through all the lots, unless some one may become too wet and soft. Feeding pastures in rotation, is of greater advantage than some are apt to imagine. One acre managed according to the above directions will turn to better account, some say, who have practised it, than three acres in the common way."*

IRRIGATING OR WATERING LANDS.—Those of our readers who have conveniences for irrigating their lands may as well attend to this business as soon as possible. If you have a spring or brook on a high part of your farm you may take all or a part of its waters from their natural channels, and lead them over the driest part of your soil, keeping them as nearly on a level as possible without having them stagnate and form quagmires in their course. You must have your water completely at command, for water like fire, although a good servant is a bad master. It is no matter how soon you prepare your channel, trenches, &c. and let a little water into them by way of experiment, but you should not apply it in any considerable quantity till the ground becomes somewhat dry. After the grass has got a fair start let the quantity of water be diminished, and you will of course stop it from your fields in wet weather, and let it run in its natural channel. After the grass is pretty well grown, water must be used only in dry weather, but in very clear and hot days it should not be applied. Nights and cloudy days are the prop-

er times for irrigation. But we shall not give minute and circumstantial directions, for you must make use of your own good sense in this as well as most other processes for improving your land. A temporary stream will not pay you for confining and directing its waters, unless, as is sometimes the case, it contains a good quantity of mud or sediment, which you may induce it to deposit for the purpose of manuring your soil. But muddy water turned on grass, which is growing, is apt to make it gritty and unwholesome.

"In regard to waters much impregnated with iron they were formerly supposed totally unfit for the purposes of irrigation; but it is now fully proved by the accurate experiments of an able chymist, and by the extraordinary growth of grasses in Prisleigh meadow, in Bedfordshire, that ferruginous waters (waters impregnated with iron) are friendly to vegetation, when properly applied.

"Waters that are impregnated with the juices that flow from peat-mosses, are considered by many not worth applying to the soil. It is objected to them that they are commonly loaded with such antiseptic substances (matters which prevent putrefaction) as will retard, instead of promote vegetation, and that they convey no material nutriment. But others are of opinion that a want of sufficient slope in the meadow, or of proper management with regard to the water, has occasioned the disappointments which have been experienced when bog-waters have been applied."* We have no doubt but a top dressing of lime after irrigation, would correct any evils to be apprehended from the acid or antiseptic qualities of the water used in that process.

SECURE YOUR FRUIT AND FOREST TREES AGAINST CATTLE.—We have our eye on some farmers and others, who have planted trees, on the borders of high ways and other places, who have not more than half secured them against cattle. This is not much wiser than it would be to build a house on a high snow bank in March or April. The trees should be substantially fenced, as high as the largest cattle can reach. But it will be advisable not to exclude too much of the sun and air. Four stout stakes, well driven into the ground at a suitable distance from the tree, and narrow but strong slips of board, nailed from one to the other, so as to form a square enclosure, with the tree for its centre, will answer, provided the fence is carried high enough.

ENGRAFTING FRUIT TREES.—Dr. Thacher says (American Orchardist, p. 35) "The most proper season for grafting in our climate, is from about the 20th of March to the 20th of May." Mr. Cobbett states that "the way in which grafting and budding is done, cannot, upon any principle consistent with common sense, become matter of written description. Each is a mechanical operation, embracing numerous movements of the arms, hands, and fingers, and is no more to be taught by written directions than to make a chest of drawers is. To read a full and minute account of the acts of budding and grafting would require ten times the space of time that it requires to go to a neighbor and learn from a sight of the operation, that which, after all, no written directions would ever teach."†

Notwithstanding, however, this energetic de-

nunciation against undertaking to describe the process of grafting in writing, we shall here repeat some rules given by Mr. Preston, of Stockport, Pa. It is true, we have published them once [No. 16, page 121,] but as we have subscribers who have commenced taking the paper since they were published, we will give them once more, viz:

"1st. Be careful not to loosen the bark of the stock in splitting it; and the safest way to guard against that is to split the bark with a sharp pointed knife, before the splitting of the stock.

"2d. As after the leaves are grown it is not expected to use scions from a distance, but to cut them out of the orchard as wanted, be sure in selecting the grafts to cut them in such a manner as to always take the bulge, between the year's growth, to shave and sit in the stock, as in that joint or bulge, between the year's growth, the wood is curled, open and porous, to receive the sap readily from the stock, and such scions will grow and flourish—when if taken from any other part of the twig they would not grow.

"3d. The clay should be very fine and tough, and pressed and bound water tight round the stock below the split to retain all the sap that oozes out to support the graft."

It is not good management to graft young trees, until you know what kind of fruit they will produce without grafting, otherwise you may introduce by art less valuable fruit than nature would have given you. Neither is it proper to take off too many limbs for the purpose of grafting in one season, lest you ruin the tree by stopping the circulation of its sap. You may see farther directions on this subject in No. 19, p. 145, of the N. E. Farmer.

LOOK TO YOUR PEACH TREES.—These trees are annoyed, and sometimes killed by small grubs, said to be about an inch in length, which are found in the roots. They are said to be produced by a blue fly, which attacks the trees from about the middle of August to the middle of September, and generally deposits its eggs in the bark at or near the surface of the ground. To take out this worm the roots must be uncovered, as soon as the tree begins to bud in the spring, and the spot looked for where the gum oozes out. Follow the cavity round with the point of a knife or a chisel, until you come to the solid wood, lay the whole open, and you will find the worm, with a white body and black head, which must be destroyed and the hole filled with cow dung, rendered adhesive by lime, sand and ashes.*

A writer in the New York Evening Post, in prescribing against this disorder says, "As soon as the buds begin to put forth, and the leaf to appear in the spring, and before they are quite out, remove from the bottom of the tree entirely all the dirt or turf till you come to the bare roots, from which scrape all the loose and old rotten bark; then take three quarts of fresh slacked lime for a large and full grown tree, and so in proportion for a smaller and younger one, and lay it carefully on, and about the roots, covering it from the weather, and it will destroy these destructive insects entirely. It is about the time the present season to begin your work; but some years it will be earlier, and some later." Wood ashes put round the roots in au-

* Deane's N. E. Farmer, p. 314, 315.

* Code of Agriculture.

† American Gardener, par. 281.

* Deane's N. E. Farmer, Art. Peach Tree; Wells & Lilly's Edition.

turn, it is said will preserve peach trees from these insects, as well as increase their fruitfulness. Indeed wood ashes, lime, soap suds, and spent tanner's bark have all been recommended as preventives against insects. We wish they might all be more thoroughly and extensively tried, both separately and mixed, and the effects of their application made public.

QUERE WITH REGARD TO PLANTING TREES.—A friend of the editor suggests an apprehension that we are (or rather Mr. Cobbett is) wrong in certain directions for planting trees, published in our paper of the 19th April, p. 301. It is there advised, previous to planting a tree, to "cut off all the fibres close to the roots; for they never live, and they mould and do great injury. If cut off their place is supplied by other fibres more quickly." This, says the querist, is contrary to the opinions and practice of such people of his acquaintance as have the most practical knowledge of the subject, and he wishes to know on what authority we founded our directions. We, therefore, now produce the observations of some other writers which happen to be at hand.

Mr. Bucknal, an English author, (quoted in Thacher's Orchardist, p. 31,) says, "*the small matted fibres must be cut off, as they are apt to mould and decay, and prevent new ones from shooting.*" Dr. Deane says, (N. E. Farmer, p. 459, Wells & Lilly's edition,) "*All the small fibres are to be cut off, as near to the place whence they are produced as may be, excepting perhaps when they are to be replanted immediately after they are taken up. But it will require great care to plant them in such a manner as not to distort or entangle the fibrous roots, which if done, will be worse for the plant than if they were cut off.*"

We have consulted Messrs. Mawes, M'Mahon, Bradley, Darwin, and some other writers, but have found no particular directions on this subject. Mr. Marshall, an old English writer, appears to be in favor of preserving the fibres. But we will give his directions at length, which we presume will not appear tedious to any one properly impressed with the importance of performing this operation in the most advantageous manner.

"Describe a circle about five or six feet diameter for the hole. If the ground be in grass, remove the sward in shallow spits, placing the sods on one side of the hole; the best of the loose mould placed by itself on another side, and the dead earth, from the bottom of the hole, in another heap. The depth of the holes should be regulated by the nature of the subsoil. Where this is cold and retentive, the holes should not be made much deeper than the cultivated soil. To go lower, is to form a receptacle for the water, which, by standing among the roots, is very injurious to the plants. On the contrary, in a dry light soil, the holes should be made considerably deeper; as well to obtain a degree of coolness and moisture, as to be able to establish the plants firmly in the soil. In soils of a middle quality, the hole should be of such depth, that when the sods are thrown to the bottom of it, the plant will stand at the same depth in the orchard as it did in the nursery. Each hole, therefore, should be of a depth adapted to the particular root planted in it. The holes ought, however, for various reasons, to be made previous to the day of plant-

ing. If the season of planting be spring, and the ground and the weather be dry, the holes should be watered the evening before the day of planting, by throwing two or three pails full of water into each; a new but eligible practice. In planting, the sods should be thrown to the bottom of the hole, chopt with the spade, and covered with some of the finest of the mould. If the hole be so deep, that with this advantage the bottom will not be raised high enough for the plant, some of the worst of the mould should be returned before the sod be thrown down. The bottom of the hole being raised to a proper height and adjusted, the lowest tier of roots is to be spread out upon it; drawing them out horizontally, and spreading them in different directions, drawing out with the hand the rootlets and fibres which severally belong to them, spreading them out as a feather, pressing them evenly into the soil, and covering them, by hand, with some of the finest of the mould; the other tiers of roots are then to be spread out and bedded in the same manner. Great care is to be taken to work the mould well in, by hand, that no hollowness be left; to prevent which, the mould is to be trodden hard with the foot. The remainder of the mould should be raised into a hillock, round the stem, for the tripple use of affording coolness, moisture, and stability to the plant. A little dish should be made on the top of a hillock, and from the rim of this the slope should be gentle to the circumference of the hole, where the broken ground should sink some few inches below the level of the orchard. All this detail may be deemed unnecessary; by those, I mean, who have been accustomed to bury the roots of plants in the grave-digger's manner; but I can recommend every part of it to those who wish to insure success, from my own practice. Plants which have been transplanted in the manner here recommended, whose heads have been judiciously lessened, seldom require any other stay than their own roots. If, however, the stems be tall, and the roots few and short, they should be supported in the usual manner, with stakes, or rather, in the following manner, which is at once simple, strong, and most agreeable to the eye. Take a large post, and slit it with a saw, and place the parts flat-way with the faces to the plant, one on each side of it, and two feet apart, and nail your rails upon the edges of the posts."

FOREIGN.

GREAT BRITAIN.—Accounts have been received from London to the 22d of March, but furnish no news of importance. The editors of English newspapers appear to exert their oratorical faculties in opposition to any interference of the British government in the impending contest. They are willing that individual Englishmen should enter the lists merely as private citizens, but not under the banners of the nation. The Morning Chronicle is of opinion that a departure from neutrality, on the part of Great Britain, would "rouse the national vanity of the French, and give rise, perhaps, to an interminable war. This is a consequence which it would be madness to hazard. Spain is strong in situation, and does not want men. We can serve her more effectually by remaining at peace than by sending a force to the Peninsula. Repeal the foreign Enlistment Bill—allow free scope to British generosity; and the French government, or we are much mistaken, will soon repent its undertaking."

SPAIN.—Accounts have been received from Gibraltar as late as the 27th of March. A report had been previously in circulation that 15,000 French troops had entered Spain, but this was premature, and no hostilities

had commenced at that period. The king of Spain is considered by the Cortes as a mere cipher, and of course makes no figure in such a crisis. He has been ordered to Seville, and the Cortes, Ministers, &c. are to accompany him. They were to set out on the 20th of March, and were expected to reach the capital of Andalusia about the 10th of April. Five Spanish armies are formed and forming; the whole, it is said, amount to 100,000 men, well clothed and furnished with means for the anticipated contest. The French declare their intention of proceeding no farther than Madrid, but to wait the tide of events at that capital. There is every appearance, however, of their meeting with some serious impediments on their march to that place; and if we might be allowed to prophecy (according to the immemorial usages of editors) we should say that the French will lose many lives and gain but few laurels in this expedition. If the Gallic eagle does not get his bones picked by Spanish crows, he will be the luckiest fowl that ever was fledged. Men who stay at home to defend their altars and fire sides possess great advantages over those who penetrate a foreign country to dragoon its inhabitants into despotism.

Spanish Cortes.—This body, in a reply to the king's speech, make the following observation: "The unheard of pretension of dictating laws to independent nations, will, if not resisted, draw in its train the ruin and dissolution of every state in Europe; and an interminable and exterminating war would reduce this fertile region to the barbarous state of the people of Asia."

GREEKS & TURKS.—On the evening of Christmas, Omer Pacha, the Turkish commander, with several thousand men, made an attack on Missolonghi with the hope of surprising it. The Greeks, however, were on their guard, beat off their enemies, and the next day surprised and took the Turkish camp, together with twelve pieces of cannon, all the munitions of war, &c. and killed 500 or 600 men. Still the Greeks have a "hard row to hoe." The Turks are collecting fresh armies, and threaten to overrun the Peninsula.

DOMESTIC.

Mr. Adams' Donation to the Town of Quincy.—The Daily Advertiser gives a sketch of a pamphlet containing the deeds of gift from the Hon. JOHN ADAMS, of several pieces of land, and of his library to the town of Quincy, with a catalogue of the library. By this it appears that the instruments convey two lots of land, called the Cedar Pasture, to the said town, conditioned that the rent be placed at interest in some solid fund either of the Commonwealth or of the United States, and the interest again placed at interest, for building a Temple for the public worship of God for the use of the Congregational Society in that town, and the support of a school for the teaching of the Greek and Latin languages, &c. Likewise a second deed conveys six lots of land on the same conditions, and to erect a stone school house "over the cellar which was under the house anciently built by the Rev. Mr. John Hancock, the father of John Hancock, that great, generous, disinterested, bountiful benefactor of his country, once President of Congress, and afterwards Governor of this State, to whose great exertions and unlimited sacrifices this nation is so deeply indebted for her independence and present prosperity, who was born in this house; and which house was afterwards purchased and inhabited by the reverend, learned, ingenious and eloquent Lemuel Bryant, pastor of this congregation; which house was afterwards purchased by an honorable friend of my younger years, Col. Josiah Quincy, and was also inhabited by his son, Josiah Quincy, jun. a friend of my riper years, a brother barrister at law, with whom I have engaged in many arduous contests at the bar, who was as ardent a patriot as any of his age, and next to James Otis, the greatest orator."

The third instrument is a conveyance, on certain conditions, to the town of Quincy, in consideration of the motives and reasons enumerated in the two former deeds, of his library, which is thus described; viz: "The fragments of my library, which still remain in my possession, excepting a few that I shall reserve for my consolation, in the few days that remain for me." To this document is annexed a catalogue of the library, containing nearly three thousand volumes. These several donations, with the restrictions and limitations, have been accepted by the town of Quincy, with votes of thanks to the venerable donor.

CITY GOVERNMENT.

The new city government was organized at Faneuil Hall on Thursday. The services commenced at 10 o'clock. Prayers were read by Rev. Dr. Freeman—the oaths of office were administered by the late Mayor, his successor in office, and the Aldermen and members of the Common Council. The Mayor elected then delivered an Address adapted to the occasion.

Pirates captured.—There is a report, by the way of Baltimore, that Com. Porter's squadron had taken and destroyed the greater part of the pirates off Havana.

Accounts from Nassau state that the launches from the Tyne and Thracian, Br. sloops of war, had attacked a large piratical vessel, in the port of Malta, a short distance from Barracoa, and succeeded in capturing the crew—killed from 15 to 20—prisoners 28.

The last advices from Mexico, inform that the short lived Ex-Emperor Iturbide I, had renounced his Imperial Diadem, and submitted to all the terms dictated to him by the Congress.

To Ship Builders.—The National Intelligencer of the 19th April, contains an advertisement from the Treasury Department of the U. States, setting forth proposals for building three vessels, to be used as floating lights. The first is to be three hundred tons, the second and third one hundred tons each.

Mr. C. W. Goldsborough, of Philadelphia, has issued proposals for publishing the *United States Naval Chronicle* in one volume, annually. It is to embrace a general and biographical history of the navy, official reports, and a variety of matter suitable to such a work.

The number of patients at the Asylum for the Insane, at Bloomingdale, N. Y. on the 1st of January last, was 91—48 men and 43 women. It is stated that a large proportion of those deprived of their reason, in this institution, have "lost it in consequence of the indulgence of spirituous liquors!"

Russian Clergy.—Mrs. Henderson, in a letter published in the *Missionary Herald*, says that at the time when a Bible Society was formed in Novogorod, (Russia) there were many of the clergy who had never seen a bible, and on hearing of it, asked *what kind of book it was?*

Long Island Pippins.—Mr. Henry Mitchell, of Flushing, Queens county, N. Y. gathered last fall from one acre, eight barrels of apples, six barrels of which were sent to Liverpool by one of the line of packets as an adventure. The captain was requested to return him the proceeds, in British sovereigns, thirty of which, amounting to \$133.33, were lately paid over to Mr. Mitchell, exclusive of freight and commissions! Such is the celebrity of Long Island Pippins throughout the world, and so important is the cultivation of good fruit.

N. Y. Statesman.

Cold Winter at New Orleans.—The past winter has been very severe at New Orleans, for that climate. From the 10th to the 16th of March the ponds in the suburbs of that city, were sufficiently frozen to permit skating. The Mercury was at 14 Fahrenheit. The orange trees are all killed, including those of fifty years standing.

Canada.—Mr. Hume lately stated in the British House of Commons that Canada cost England half a million of pounds sterling annually, and that the strength of England would be increased by granting independence to this and many other of her foreign colonies.

Horse System.—There is now in Virginia, a gentleman by the name of Smith, lately from New Orleans, who can teach the wildest horse (having a knowledge of the bridle) in less than an hour to follow him through a large company without taking hold of the bridle, up a pair of stairs three or four feet or more high, into a dwelling house, and walk from one room to another as invited, without any alarm. This gentleman system has a wonderful effect in breaking any horse to draw in harness. His price for imparting this system or secret is \$20. The system is so very simple that he can teach it to any person in one hour.

Richmond Enquirer.

A grass bonnet, in imitation of Leghorn, was sold at Baltimore, a few days since, at 40 dollars. It was made by some young lady, living on the Susquehanna.

Long Island Races.—Great preparations are making, says the U. S. Gazette, for the races which will take place in May next at the Union Course. Eight horses from the South have already arrived, and are now in training, upon Long Island—ten more are soon expected.

An association has been formed in New Jersey, to check, by "precept and example," the immoderate use of ardent spirits. It is a "growing and blasting evil," and we wish such associations were more numerous.

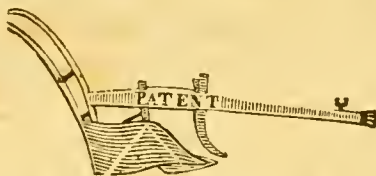
Melancholy Accident.—Three men were killed on the 13th of March by the explosion of a cask of powder containing 320 lbs. They were a part of the expedition designed for the Rocky Mountains.

The new establishment at Key West has been named *Allen's Town*, in honor of the lamented Lieut. Com. William H. Allen.

The effects of Intoxication.—A man named J. Schaeffer, was lately drowned in attempting to cross the Cadorus, about 4 miles below York, Pa. He undertook to cross a stream of water while in an intoxicated state, but fell out of the canoe and was drowned. He was soon taken up, while retaining some appearance of life, but all attempts to resuscitate him were fruitless.

Letter Lost.—A letter mailed in Charleston, S. C. on the 5th of February, directed to G. & R. Waite, N. York, and containing one thousand dollars in bills of the United States' Branch Bank, has been lost, and 100 dollars reward offered for its recovery.

New College in Kentucky.—At Augusta, Ken. a College has recently been established, which, under divine Providence, bids fair to rank among the first institutions of the kind in the Western country, if not in the United States.



AGRICULTURAL ESTABLISHMENT,

NO. 20, MERCHANTS' ROW,

At the East End of the Old Market.

FOR sale as above, a variety of the most approved single and double mould board Ploughs, C. Howard's improved cast iron mould board, with wrought Shear and Coulter, Cast iron do. do. do. J. Seaver & Co's. do. do. Bigelow's wrought do. do. Warren's much approved common Ploughs, Sinclair's side hill do. do. do. Howard's much improved Cultivator, an implement highly esteemed for its use and utility in drill cultivation, Beatson's Scarifier, Bennet's Broad Cast, Seed Sowing Machines, calculated for large and small seed, Eastman's improved Straw Cutter, Safford's new invented Straw Cutter, much improved, Common hand Straw Cutters, An English Vegetable Cutter, Stevens' patent steel spring Hay and Manure Forks, Steel spring Potatoe Hoes, English cast steel broad Hoes, Common and steel do. do.

A great variety of Garden and other Agricultural Implements.

Tree Brushes, for destroying Caterpillars, an article highly recommended for that purpose, by the Hon. Timothy Pickering, whose communication on this subject appeared in the *New England Farmer*, April 26, page 308.



AGRICULTURAL & HORTICULTURAL SEEDS.

JOSEPH BRIDGE, No. 25, Court Street, has just received, per London Packet, a variety of

GARDEN AND FIELD SEEDS,

which added to his former extensive assortment, makes the most complete variety, probably in the U. States. Among them—300 lbs. Carrots, 200 lbs. Beets, 50 lbs. Mangel Wurtzel, 200 lbs. Ruta Baga, 30 bush. Peas, 100 Raddish. of sorts; Lettuce, Cabbage, Cauliflower, Kale, Brocoli, Sweet Marjoram, Thyme, Summer and Winter Savory, Sage, Hyssop, Fennell, Dill, Falsifie, Scorzenera, Endive, Red and White Clover, Red Top, Foul Meadow—with an extensive collection of Flower Seeds, Bird Seeds, &c.

GARDEN TOOLS, viz: Pruning and Budding Knives, Pruning Saws, Transplanting Trowels, Garden Reels and Lines, Edging Irons, &c. Flower Pots constantly on hand.

May 3.

PRICES OF COUNTRY PRODUCE, &c.

[Revised and corrected every Friday.]

		FROM	TO
		D. C.	D. C.
ASHES, pot, 1st qual.	ton.	185 00	190 00
" pearl do.		180 00	185 00
BEANS, white,	bush	1 00	1 10
BEEF, mess, 200 cwt.	bbl.	9 00	9 50
" cargo, No 1,		8 50	8 75
" No 2,		6 50	7 00
BUTTER, inspect. 1st qual.	lb.	13	14
" 2d qual.		10	11
small kegs, family,		15	16
CHEESE, new milk		7	9
FLAX		8	9
FLAX SEED	bush	85	90
FLOUR, Baltimore, superfine,	bbl.	7 62	7 75
Genessee		7 75	7 87
Rye, best		4 50	5 00
GRAIN, Rye	bush	75	80
Corn		64	67
Barley		63	65
Oats		42	45
HOGS' LARD, 1st sort	lb.	9	
HOPS, No 1,		10	12
LIME,	cask	1 25	1 50
OIL, Linseed, American	gal.	65	00
PLASTER PARIS	ton.	3 00	3 25
PORK, Navy Mess	bbl.	12 00	12 50
Bone Middlings		14 00	14 50
Cargo, No 1,		12 00	12 50
Cargo, No 2,		11 00	11 50
SEEDS, Herd's Grass	bush	2 25	2 50
Clover	lb.	8	9
WOOL, Merino, full blood, washed		55	65
do do unwashed		45	48
do 3-4 washed		45	55
do 1-2 do		40	45
Native		38	40
Pulled, Lamb's, 1st sort		55	60
do Spinning, 1st sort		50	55

PROVISION MARKET.

BEEF, best pieces	lb.	8	10
PORK, fresh		8	9
VEAL,		6	8
MUTTON,		5	7
POULTRY,		10	12
BUTTER, keg & tub		15	16
luup, best		16	18
EGGS,	doz.	11	12
MEAL, Rye,	bush	85	90
Indian,		75	80
POTATOES,		37	42
CIDER, liquor,	bbl.	1 50	2 25
HAY, best,	ton.	20 00	22 00

May 3.

☞ The following flower of Parnassus is as fragrant as the fruit it celebrates.

To the Hon. the Speaker B****w, who presented nine incomparable Peaches, to be divided between three Sisters.

"How beautiful! how rich! how very fine! Sisters see this! see that! O, how divine! If Eve with fruit like this did Adam treat, Sure none can blame the man *"that he did eat."* Such, "Mr. Speaker," were the gracious speeches Made by the Sisters over your nine peaches. I merely said "Men by their fruit are known, *And this is in the Speaker clearly shewn."* The sisters then cull'd each their peaches three, Without reserving even one for me. On that I moved, what did not seem unfair, To take from each a peach, and leave a pair. But calling me "to order" one and all, I was oblig'd my motion to recal. Yet still they "order" cried with all their might, Until the "Previous Question" brought them right. "Thanks to the Speaker," then was the decree, And this most pleasant task impos'd on me; No sooner "Mr. Speaker" said than done, A "vote of thanks" was passed to you "Nem. Con." And next year should your peaches prove as fine, Again "shew cause" and I'll invoke the nine.
Lynn Mineral Spring Hotel. I. T. S.

The Weather.—It is a luxury to live in so delightful a season as we have enjoyed for a week past. In so bland an atmosphere—under so bright a sky—the affections must bloom and expand like the flowers. Good as you may be, taking the average of the year, you ought to be better and more amiable now than at any other period.

"Chief, lovely Spring, in thee and thy soft scenes
The smiling God is seen."

Spring is the darling offspring of Deity. And it repays his kindness by the fragrant worship of new-born flowers, and the sweet anthems of the birds of music. It is the season of innocence—when maiden roses look for the first time on the earth which they adorn. It is the season of love—when zephyrs allure him to enchanting beauty. It is the season of happiness—when we transplant to our own bosom the sweets that surround us, and, discarding every annoying sentiment, make the mind as gay within as the garden is without.

"Earth in her rich attire
Consummate, lovely smiled." [Ch. Courier.]

In Holland, that beehive of industry, every available source of service is made use of, so that dogs, and even goats, are not suffered to pick the bone or eat the bread of idleness.—Most of the little wares and merchandizes, vegetables, turf, and particularly fish, are drawn by the former, who are properly harnessed for the occasion to little carts, and according as the carts vary in size and are laden, the dogs are put to in proportion, so that sometimes there are six dogs harnessed to a cart, three abreast, whilst the goats are yoked to infantine wagons and carriages, to air and exercise little children. It is really astonishing to see the weight these animals will draw; nothing can exceed their docility; and for their labor, the Hollander (who is remarkable for his humanity to the dumb creation) feeds them well, and lodges them in his own house very comfortably.—Owing to the great care paid to their dogs, the canine madness seldom appears among them. On Sundays they are permitted to refresh and enjoy themselves, and never show any disposition to escape from their lot.

I do not know a practice which I should more recommend than early rising, whether devotion, health, beauty, or improvement of the mind, were the objects in view. How cheerful and how animated are the meditations of the morning! What a delightful bloom flushes into the cheeks from its balmy exhalations! What an unspeakable cheerfulness glides into the soul, from hearing the devotional matins of the lark, and from beholding the new-born scenery of nature! How necessary is such a regimen to preserve that sweetness of complexion and of breath which are the very essence and perfume of beauty! When people think of accounting to God for the talents they have received, they overlook the hours which are lost in morning sloth and unreasonable indulgence. I have injured myself for many years to this habit of early rising. In the spring months of April and May particularly, I grudge every moment that is wasted after five. I consider it as a rude neglect to all those sweets which opened to salute me, and always find so much more deducted from the firmness of my health, and the vigor of my understanding.—Bennet's Letters.

Every body has heard of Irish Bulls, but it is seldom we have a genuine blunder of this sort, on as good authority as the following: In 1808, the present Capt. Woolsey, the late Capt. Gamble, and Mr. James Cooper, of this city, then all of the Navy, with the late Col. Chrystie, and Col. Gardner, now of this city, of the Army, formed one mess, at Oswego, on Lake Ontario. The servant of Colonel (then Ensign) Gardner, was an Irish lad of about twenty, who was known in the mess by the name of *Sligo*. On one occasion, when the gentlemen were drinking their tea, the fire fell down, and a coal lodged in a large crack, where it soon produced a blaze. "Put out the fire, *Sligo*," said one of the gentlemen. The lad seized the tea-kettle, in haste, but when he had it over the fire, he suspended his operations, though every feature in his face expressed doubt, anxiety and zeal. "Put out the fire," cried the head of the mess, in a voice of thunder. The poor boy wished to obey, but his brain was on fire itself. He thought he saw instantaneous destruction in the act. The dry, shingle edifice was in flames before his mind's eye, and forgetful of his customary obedience, he ventured to expostulate: he cried in a tone of awful remonstrance—"The water's war-r-m Sir!"—N. Y. Com. Adv.

Anecdote of Dr. Mitchell.—It is said the celebrated Dr. Samuel L. Mitchell, travelling in the stage, and happening to be the only passenger, was very sociable with the driver, asking him many questions, some of which the driver considered rather philosophical, and not a little puzzling. The "knight of the whip," in turn, put the following question to the learned Doctor:—"Why, Sir, do white sheep eat more than black sheep?"

"Indeed," said the Doctor, "I was not aware that they did." The Doctor was proceeding in a very philosophical manner to account for the difference, by supposing the white sheep had less oil in their fleeces, than the black sheep.—"You are not right, Sir," said Jehu. "Pray, my friend," said the Doctor, after a few moment's reflection, "can you tell?" "I can Sir; there are more of them."

ENGLISH BULL.

FOR sale or to let, an IMPORTED BULL of 3 1/2 years old, of the Normandy breed (similar to the Alderney, only rather larger sized) and considered the richest Milkers in Europe. This animal is large, and very finely shaped, a brindle color and perfectly gentle Price, One Hundred and Fifty Dollars; or if well placed, will be let on equal shares for two years.

Also—TWO BULL CALVES, from first rate Milk ers, and a FULL BLOOD ALDERNEY BULL, owned by the Massachusetts Agricultural Society—will be sold for Fifteen Dollars each, if taken away immediately.

Apply to JOHN PRINCE, at his Farm on Jamaica Plain.
Roxbury, 19th April, 1823.

BELLFOUNDER,

The Wonderful Norfolk Trotter, imported July 1822, from England,

WILL STAND THIS SEASON, 1823,

At Twenty Dollars, and One Dollar the Groom. The money to be paid to the Groom at Covering.

THIS celebrated Horse is a bright bay, with black legs, standing 15 hands high; his superior blood symmetry and action excel those of every other trotting Stallion. He is allowed by the best judges in Norfolk to be the fastest and best bred Horse ever sent out of that County. He has proved himself a sure foal getter and his Stock for size and substance are not to be surpassed; they are selling at the highest prices of any Horses in Norfolk.

BELLFOUNDER was got by that well known, fast and high formed Trotter, OLD BELLFOUNDER, out of Velocity, which trotted on the Norwich road, in 1806 Sixteen miles in one hour, and though she broke fifteen times into a gallop, and as often turned round, won the match. In 1808 she trotted Twenty-eight miles in one hour and forty-seven minutes, and has also done many other great performances against time.

BELLFOUNDER, at five years old, trotted Ten miles in six minutes, and in the following year was matched for 200 guineas to trot Nine miles in thirty minutes, and he won easily by thirty-two seconds. He owned shortly after challenged to perform with him Seventeen miles and a half in one hour, but it was not accepted. He has since never been saddled or matched.

OLD BELLFOUNDER was a true descendant from the original blood of the Fireaways, which breed of Horses stands unrivalled, either in this or any other Nation.

BELLFOUNDER is strongly recommended to the public by the subscriber, as combining more useful properties than any other Horse in America, and will stand, during the season, at his Stable in Charlestown where all inquiries, post paid, will be attended to.

SAMUEL JAQUES, JR.

Charlestown, Mass. April 25, 1823.

FRUIT TREES IN THE NURSERY.

HANDSOME budded Peach Trees, but three years from the seed, yet as large in general as can be reasonably desired, may be had at the KENRICK PLACE in Newton, at 33 cts. each. The Nursery contains upwards of twenty of the best kind of Peaches which have hitherto appeared in the Boston market. Also, 200 Currant Plants of two years growth, on moderate terms: if applied for soon: they should be planted out at four feet distance in rows four feet apart. Also, large English Walnuts, Butternuts, Catalpa, Mountain Ash, &c.
Newton, April 26.

NEW GARDEN SEEDS.

FOR sale, by GEO. MURDOCK, No. 14, Market Square, a great variety of English and American GARDEN SEEDS, of the last year's growth; consisting of early Frame, Hotspur and Charlton Pease; early and late Cabbage; early and late Cauliflower; Sweet Marjoram, Thyme, &c. with every other Seed suitable for a Kitchen Garden. Also, 40 lbs. Mangel Wurzel or Scarcity—100 lbs. Ruta Baga or Swedish Turnip—a quantity of Armack or Carrot. March 29.—6w

TERMS OF THE FARMER.

☞ Published every Saturday, at THREE DOLLAR per annum, payable at the end of the year—but those who pay within sixty days from the time of subscribing will be entitled to a deduction of FIFTY CENTS.

☞ No paper will be discontinued (unless at the discretion of the Publisher) until arrearages are paid.

NEW ENGLAND FARMER.

PUBLISHED BY THOMAS W. SHEPARD, ROGERS' BUILDINGS, CONGRESS STREET, (FOURTH DOOR FROM STATE STREET.)

OL. I.

BOSTON, SATURDAY, MAY 10, 1823.

No. 41.

SAVING AND MAKING THE MOST OF MANURE.—BY THE EDITOR.

(Continued from page 232.)

ON COMPOSTS.

was well observed by an English writer, "the common way of spreading unmixed dung over land, be it arable, pasture or mowing, by no means answer the end; for the fertilizing particles of dung being of a volatile nature, are readily exhausted by the action of the wind and air. Most people think if they have enough, all is well, and vegetation cannot be going on. This is especially the case in repairing of worn out grounds. But with us we can by no means agree. *Dung ought to be considered no more than a good ingredient to be mixed with earth and other sorts of compost.*" Indeed we have heard it asserted by an experienced agriculturist that he actually nearly destroyed his grass in a mowing lot by spreading the soil in the spring a quantity of fresh dung taken from his pig-stye. "The dung," he said, "was of too hot a nature, and caused the turf to be so scorched by the sun that the grass was burnt up." It is true that fresh animal dung, applied to plough-land, does not often produce so bad an effect. But the manure in this case, by mixing with the soil, forms a sort of compost, and the dung is diluted with earth. We hear farmers complain, in dry seasons, that their dung does more harm than good, by increasing the effects of the drought. But if it is well mixed before it was applied to the soil with two or three times its bulk of earth, it would preserve against the drought instead of increasing it. A plant will no better grow on a dung-heap than on a sand-heap, and in some cases pure sand would be a better application to increase the fertility of a soil than unmixed dung.

We have seen many directions for making composts, but have no recollection of any thing so perspicuous, and at the same time more comprehensive, than the following from Sir John Sinclair's Code of Agriculture.

The utility of composts has been proved by the experience of numbers, in various districts. The subject may be considered under the following heads: 1. The materials used; 2d. The crops to which it should be applied; 3d. The effects produced.

1. *Materials.*—Unslacked lime, and earth of different sorts, are the substances used. Quick lime is the proper stimulus for bringing the powers of a compost into action; operating upon a heap of earth in some degree as yeast does upon a quantity of flour or meal. Enough must be applied to excite a species of fermentation in the heap, and to neutralize any noxious mineral substances which may exist.

The formation and conveyance of compost has long attended with much expense, where circumstances will admit of it, horses, instead of manual labor, ought to be employed in the process of preparation, and the compost should be prepared in the field to which it is afterwards to be applied.

"It has been ascertained by a number of experiments, that two bushels of unslacked lime are sufficient for each cubic yard of a medium quality, and as 80 cubic yards of earth are sufficient to manure an acre, 160 bushels of unslacked lime is the quantity required.* To obtain this quantity of earth it is the practice of some farmers to plough the head ridges of both ends of the field, ten inches deep, and to collect one half of this, which can often be spared without any loss, as the head ridges are generally too high, in consequence of the earth accumulated in the course of years, from the plough being cleared every time it turns. It has been calculated that where a hedge ridge is eighteen feet broad, 72 feet of it in length, ploughed ten inches deep, will produce 40 cubic yards of earth, and consequently the two head ridges will produce 80 cubic yards of compost for the field to be manured.

"Composts are frequently made of various materials, as several sorts of earth, lime, old mortar and plaster, green vegetables before they run to seed, tanner's bark, sawdust, soap ashes, dung, &c. It is recommended that instead of being laid in regular layers, they should be mixed as much as possible in forming the heap. A fermentation is soon excited, and the oftener the heap is turned so much the more will fermentation be promoted.†

2. "Composts are peculiarly well calculated for grass-lands, and ought to supersede the offensive and wasteful practice of laying putrescent matter on the surface of the soil, by which a very large proportion of its most valuable component parts is lost in the atmosphere.—They are likewise of great use to moorish lands, augmenting their staple, and adding to them a number of valuable and enriching substances. In regard to sandy or clayey soils, composts, principally consisting of articles different from their general nature respectively, will improve their texture and convert them into loams.

3. "The effects of composts are highly satisfactory. In regard to grass-lands experience has shown that they at once improve their quality, and check, for years, the progress of moss, or even unprofitable grasses. In thin moorish

*Composts, however, may be made with less lime, or without any lime, as will appear hereafter. And when quick lime and dung are used, a layer of earth should be interposed between those two substances, for lime, if mixed with dung, in the first stage of its putrefaction corrodes and dissipates its effluvia, and your manure may thus be consumed with but little more advantage than if it were burnt with fire. It appears that lime is a useful material, if used with hog-yard and slaughter-yard manure. See the statement of Col. Valentine's mode of cultivating Indian corn, No. 22, page 176.

†It is doubted, however, whether there is much advantage to be derived from often stirring a compost heap. Every time it is turned over, a quantity of gas, which composes the essence of the manure, will escape. Mr. Bordley says, "often turning the compost may weaken it as a manure, and even check its fermenting." And Sir John Sinclair, himself, says (Code of Agriculture, pp. 196, 197), "The old practice of frequently stirring, turning and mixing the dung, without in general even covering the heap with earth when it was turned, is now very properly laid aside."

soils, composts, properly and repeatedly applied, alter the nature of the soil; it becomes more fertile, retains its moisture better, and does not suffer by the summer's drought, which would otherwise burn up the crops.

"It is a circumstance not to be omitted, that lime will operate in compost, upon lands that have been exhausted by the over frequent or too abundant application of lime or marl, even where it had not succeeded when used by itself. This is a strong recommendation of such mixed manure, as land may thus be cultivated to advantage, that would otherwise remain unproductive."

A good compost may be made simply by a mixture of surface mould and barn yard dung, without any particular rules for the quantity of each. Sometimes two parts of dung are used for one of earth; sometimes they are mixed in equal quantities, and it is not uncommon to compound two parts of earth with one of dung.—The use of the earth is to imbibe the gas or effluvia arising from the dung, while it is decaying and putrescent. "The only error, into which the farmer can run, is to supply such an inconsiderable quantity of earth as will be incapable of imbibing the elastic and volatile particles, and thus by his own mismanagement occasions a waste of vegetable aliment. One cart load of soil to two of stable dung is the least proportion which he should ever attempt to combine, and perhaps if the two were mixed equally, he would be compensated for the additional labor and expense.

"The whole art of composting, is to arrange the materials in alternate layers,—to shake up the litter and dung with a hay fork that it may lie loosely,—to cover the top and the sides with earth, and to give it a sloping direction that it may cast off excessive moisture. Its height should never exceed four feet, or four and an half; and its breadth should be such that a man on either side may be enabled to fling the ingredients into the centre without trampling on the heap; for compression in all cases retards the putrefactive process. If the mass, after being compounded, is long in generating heat, urine, salt water, or even fresh water poured on the top slowly, that it may ooze downward, will bring it on with rapidity. On the other hand, should the process advance with too great violence, which can always be known by keeping a stick in the middle, and drawing it out occasionally for trial, the fermentation must be restrained by turning over the dung-hill, and mixing anew the ingredients. This will not only put a stop to the mischief, but facilitate a second fermentation; and as fresh particles of earth will be brought into contact with the decomposing matter, the whole will be enriched and impregnated with the fertilizing principles. These general views are applicable to every species of compost.

"Simple earth, although excellent for bottoming and strewing over the pit dug near the barrow, is of all materials the most unprofitable in compost dung-hills. When free from all foreign mixture, it contains nothing on which the fermenting process can operate, it brings no

addition to the mass of fertilizing matter. It is the recipient of the elementary principles, but contributes none of them itself; and as far, therefore, as its agency is concerned, it is unproductive and unprofitable. A matted sward thickly entangled with roots, or mud dragged from the bottom of ditches, and replete with aquatic plants, are clearly preferable on this account, that, besides bringing earth to the composition, they supply a large proportion of vegetable matter. Whenever the soil must be carted to the heap, it is better to lay out the expense in transporting these enriching materials, because they will not only equally absorb and retain the evaporating gases, but greatly augment the quantum of manure.*

Mr. Arthur Young says, in substance, that the common way to make composts is to lay the several materials in layers one over the other, till a large heap is raised; and it is advised by some authors, and the practice of many farmers is to make these layers from six inches to a foot in thickness; but this he has found by experience to be wrong; for the fermentation raised in the compost is not strong enough to penetrate such thick layers, especially those of clay, or strong earth; for after the rest have sufficiently fermented, and the compost is turned, these layers rise almost as whole as when first laid, and must be broken by hand to mix them with the rest of the compost; whence arise two inconveniences, one an extraordinary expense, and the other twice or thrice turning is sometimes necessary to dissolve these large pieces; and as a new fermentation is excited every time the compost is turned, the strength of the manure is greatly wasted before it is laid upon the land, where it is then incapable of raising any considerable fermentation, which is, he thinks, one of the principal uses of manure.

* Letters of Agricola.

From the American Farmer.

FLAX DRESSING MACHINE.

To WM. M. BARTON, ESQ.

Dear Sir,—I beg your acceptance of a sample of flax for the inspection of the "Valley Society of Virginia." The bleached sample is from flax that was water-rotted, the dew-rotting being found not to answer for that process. Of the dew rotted parcel, I must remark, that the quality of the flax is not considered to be the first—all of this year's crop being very inferior, and all of that which is dew-rotted, at any time, whatever the quality may have been previously, sustaining so much injury from the process as not to entitle it to first rate, however well cleaned it may be. I cannot, therefore, present this as very fine in quality, but beg your attention to the dressing of it. This was done by a machine of small dimensions, simple construction, and exceeding durability, invented by Mr. Rodman Goodsell, of Oneida county, New York. With this machine, driven by one horse, a man will break, hatchel, and dress, clean enough for the distaff, 100 lbs. per day—and with the same thresh 100 bushels of grain per day, the latter without one cent extra expense. As your county is celebrated for its wheat culture, Mr. Goodsell and myself have determined to send one of them to you in the course of a month. Should it arrive in time for your March meeting, please to do us the favor to call the atten-

tion of the gentlemen of the society to its performance, and drop me a line of the impression it produces. The price of each machine is \$100—that is, we furnish the machine and give the right to use it for that price, the purchaser paying, of course, the expenses attending the erection of the same, together with such incidental charges as may attend its transportation from the place where it may be manufactured.

I am, with great respect,

Your obed't humble serv't,

SAMUEL SWARTWOUT.

New York, 6th Feb. 1823.

The Flax Machine may be driven either by water or horse power.

One horse is sufficient to turn one or more of these cylinders. The cylinder for dressing or threshing requires to be driven at the rate of about 160 or 170 revolutions in a minute. Any millwright will make the calculations for the size of the large wheel, when intended for water power. For horse power, our large horizontal wheel attached to the horse shaft, is 12 feet diameter—around this we put a strap, 5 or 6 inches broad, of harness leather—this strap runs round the shaft or axis of the second large wheel, upon a whirl 18 inches diameter. There is a wheel for a strap or band upon one end of this axis 6 feet diameter, over which another strap of the same breadth and thickness, as that which runs over the large wheel, descending into the room below, and is attached to and runs over a small whirl fixed upon the axis of the cylinder. This latter whirl is 8 inches diameter. The above calculations are made upon the supposition that the horse walks three times round his path in a minute—the diameter of his walk being 24 feet.

From the National Gazette.

Messrs. Editors,—A paragraph in your Gazette of Saturday, on the subject of Bees, induces me to mention, that an easier method of gathering the honey than in India, and a more merciful one than what is generally pursued in this country, is practised in Germany. There, this interesting little insect is cultivated to great extent, frequently as an amusement, and very commonly as a source of revenue. Many treatises have been written on their singular nature, domestic arrangements and the best mode of rearing them. Perhaps I put some of your readers in mind of the renowned Baron Münchhausen, when I state that in some parts of Germany they are regularly taken to pasture! yet such is the fact. I have seen on the great heath of Luneburg in the Hanoverian dominions, hundreds of Hives that were carried there from distant places in the spring of the year, for the bees to pasture on the heath flowers; herdsmen attended them; and in the autumn they are taken home again.

The mode of securing the honey is this, early in the fall the Bee-father (as the person who cultivates Bees is called) protects himself with gloves and a kind of cap long enough to hang over his neck and shoulders, and which has a wire mask—and in dark rainy weather, or early in the morning or late in the evening, when all the Bees are at home, he turns the hive upside down—a match made of dry herbs, such as rue wrapped in tow and linen, which burns without flame and makes a great smoke, is lighted and the smoke blown upon the hive, which

drives the bees to the lower part of the hive and gives him an opportunity of taking what quantity of honey he thinks they can spare, leaving a sufficiency for winter provision. Should it happen that the Bee-father takes a large tribute, or that an early winter prevents the Bees from replenishing their stock as expected—they then are regularly fed with composition consisting of sugar, honey, wine and water, boiled together, which is put in a sifter under the hive.

Your's,

A GERMAN.

Curious method employed in France of protecting Trees from injury by the Spring Frosts.

It is stated in the Memoirs of the Royal Society of Agriculture at Paris, that, from repeated experiments, frost, like the electric fluid, may be drawn off from the atmosphere, and have its influence diverted so as to guard a particular object from its most pernicious effect. An application of this principle is therefore directed to preserve from injury the tender blossoms of fruit trees which are so often cut by spring frosts. Intertwine a thick hemp rope [probably straw or flax would do as well] among the branches of a fruit tree in blossom and let the end of it be suspended so as to terminate in a pail of water at the bottom of the tree; should a slight frost take place during the night, the tree will not be in the least degree affected, while the surface of the water which the rope is, will be covered with a coating of ice of more or less thickness, though water placed in another pail by the side of it will frequently, where the frost is slight, have a crust on it.

BREWING.

Niceties in Malting, the observance of which increase the profits of the Malster near per cent.

In malting barley, the water should be changed oftener in spring and autumn, when the weather is warm: if barley is left to steep long at these seasons in the same water, the water will grow slimy, and sometimes sour; the malster should therefore watch the character of the water, and when he finds it smooth and oily to the touch, or inclining to smell or taste sour, it must be changed immediately.

The common method of changing it, is first to draw off that in which the barley was steeping, and then by pumping or pails full, fill the cistern again: but this is a bad way, for when the water is drawn off the barley lies close and is apt to heat, which causes great damage. It is therefore recommended to get a hogshead of water in readiness near the cistern, which should be thrown on the barley the instant the first water is drawn off; and as a hogshead of water is sufficient to wet eight bushels of barley, as many hogsheads, save one, should be afterwards added, as the cistern will wet.

River water is the best, and hard spring water is the worst: in general the water the soonest lathers should be preferred.

A thin-skinned fine-coated barley is the best for making malt; it need not be very full-died, but should be quite ripe.

Barley that has grown on land highly manured is not so good as that produced on a moderately rich without manure; and if a

is very luxuriant, either by nature or art, barley will not be fit for the malster. It is a good practice to give malt as much drying as possible on the floor; it does not sink so much as on the kiln, and acquires no foreign taste; when it comes to the kiln, the fire in the furnace should be moderate but equal. Brown malt, used in the same proportion as pale malt, will not make the strongest beer; but the pale malts that are slack dried, make a raw unwholesome liquor that will not keep. Malsters should never buy barley grown on various soils, or even different fields, because the kernels will spire at different times; they should therefore never buy tythe barley. A malster having bought one hundred quarters of tythe barley, without knowing it, soon discovered it in the malting, and sold it to a hogdealer for eight-pence a quarter less than he gave, as the least loss he should incur by his gain.

To discover whether malt has been made of rye or unripe barley, throw a couple of handfuls of it into a bowl of water; stir it gently, and the grains that have not been malted will sink, the half-malted grains will have one end sink, and so swim in a perpendicular position, and those that are perfectly malted will swim. The best barley will not malt equally well at different times. As soon as housed, before it is in sweat, and after the sweating is over, it will malt well, but not while it is in sweat. Barley that has been got in early in a very early season malts but indifferently; but if the barley is left abroad till rain falls on it to loosen the husks from the kernel, it will malt well, and yield a large increase.

Method of extracting the virtue of Hops in Brewing. The usual method is to put in hops without preparation into the strong beer or ale wort; the consequence is, the richer and better the wort is, the less it will partake of the essence of the hops. The rich fat wort sheathes up the pores of the hop, and, as it were, embalms the leaves, so that the beer or ale wort can extract scarcely any part of the necessary quality of the hop; but when it is put into the smaller wort, a fluid of a more thin nature, there the pores are unsheathed, and the small beer is rendered too bitter; therefore the hops, before they are put into the strong drink, should be previously soaked in a pail of hot water.

To confirm the truth of this observation, take a quarter of an ounce of the best green hops, and instead of pouring on it simple boiling water, let the water have the same quantity of sugar boiled in it that would be necessary to sweeten so much tea when made, and you will find that the sweetness of the water will prevent its extracting the grateful bitter of the tea.

Cheap and easy Method of Brewing.

One bushel of malt, and three quarters of a hundred of hops will, on an average, brew twenty-gallons of good beer. For this quantity of malt, boil twenty-four gallons of water; and having dashed it in the copper with cold water to stop the boiling, keep the malt (properly covered up) for three hours; then tie up the hops in a hair cloth, and boil malt, hops, and wort, all together, for three quarters of an hour, which will reduce it to about twenty gallons. Strain it off, and set it to work when luke-warm.

In large brewings this process perhaps would not answer, but in small ones, where the waste is not so great, and where the malt can be boiled, the essence is sure to be extracted.

Best method of making Sage Cheese.

Take the tops of young red sage, and having pressed the juice from them by beating in a mortar, do the same with the leaves of spinach and then mix the two juices together. After putting the rennet to the milk, pour in some of this juice, regulating the quantity by the degree of color and taste it is intended to give to the cheese. As the curd appears break it gently, and in an equal manner; then, emptying it into the cheese-vat, let it be a little pressed, in order to make it eat mellow. Having stood for about seven hours, salt and turn it daily for four or five weeks, when it will be fit to eat. The spinach, besides improving the flavor and correcting the bitterness of the sage, will give it a much finer color than can be obtained from sage alone.

Easy method of restoring and rendering legible, damaged Parchment Deeds, &c.

The following mixture, it is asserted, will make writing which has been obliterated, faded, or sunk, either on paper or parchment, immediately legible. Bruise two or three nut-galls, infuse them in half a pint of white wine, and let the bottle stand for two days in the sun or any other equally warm situation; then wash that part of the parchment or paper which is wanted to have the writing recovered, by means of a sponge or soft brush dipped in the vinous infusion; and the purpose will be immediately answered, if it be sufficiently strong. Should that not happen, its powers must be increased by an additional quantity of galls; and, perhaps, in some instances, stronger heat, and even stronger wine, may also be necessary.

MEDICAL INTELLIGENCER.

The first No. of a weekly paper, called the "Boston Medical Intelligencer," was published on the 30th ult. by Mr. R. M. Peck. It is edited by J. V. C. Smith, M. D. Lecturer on Anatomy at the Berkshire Medical Institution. It is stated in the Publisher's advertisement that "It is the object of this paper to give opportunity of communicating, without delay, histories of recent cases, developing the character of prevailing diseases; to furnish seasonable information on subjects which regard public health; and to present the reader with a variety of miscellaneous matter on subjects relating to medicine, that many times is withheld from the public in general in consequence of the scarcity of the works from which they are obtained."

The following extract from the paper which is the subject of this notice, shows the evil consequences of burying the dead in the midst of populous cities; a custom which we are sorry to see retained with so much pertinacity by certain rulers and elders thereof. This method of poisoning the living, in order to shew our affection for the dead, is carrying our veneration for the tombs of our ancestors to an extreme which nothing but superstition can sanction.

SEPULTURE.

At *Saulieu*, Burgundy, a mild catarrhal fever was epidemic. A very corpulent body was buried in the Church of St. Saturnin. Twenty-three days after, a pit was opened by the side

of that, in which was the corpulent body, to bury a woman who died in child-bed, under this fever. A most fetid odour immediately filled the church, and affected all who entered. In putting the woman's coffin into the pit, some sanies issued—its odour strongly affected the assistants. Of one hundred and seventy people who entered the church, from the opening of the pit till the burial, one hundred and forty-nine were attacked with a putrid malignant fever, somewhat resembling the epidemic. Its nature and intensity left no doubt it owed its malignity to the infection of the church.

A malignant epidemic fever, caused by removal of the earth of the cemetery of St. Peter's Church, also shows the danger of burials in churches and populous places. At *Auvergne*, an old cemetery was dug over to embellish the town: soon after, an epidemic appeared which carried off a great many people, particularly the poor, and in the neighborhood of the cemetery. Six years after a like cause produced an epidemic in *Ambert*, in *Auvergne*.

The body of a very fat person was buried under a foot of earth and eight inches of stone: the abundant vapours from it made it necessary to dig it up. Three diggers undertook it—two of them were attacked with violent vomiting, and left the work: the third determined to finish it, and died in ten days after.

The Curate of *Arna-le-Duc*, Normandy, after having breathed the infected air from the body he was burying, had a putrid disease, which reduced him to the last extremity.

The lord of a village, two leagues from Nantz, died. To place his coffin according to his friend's wishes, it was necessary to remove several coffins, among which was that of his relation. A most fetid odour spread itself in the church. Fifteen of the visitants died shortly after: the four persons who removed the coffins, died first: six curates, present at the ceremony, hardly escaped death.

The water of the wells below the cemetery of St. Louis, at Versailles, could not be used on account of its fetid mass.

At Lectoure, 160 miles S. W. from Paris, the opening of a body was followed by an epidemic.

In digging vaults in the church of St. Eustache, Paris, it was necessary to move some bodies, and to put others in a vault which had been a long time shut. Children who went to catechism in the church, and many adults, were seized with difficulty of respiration, irregularities of pulse, some of them with convulsions of the limbs.

From 1776, burials in towns and churches, is forbidden in France. In 1810, an Archbishop of Aix in vain solicited of the government the favor to be buried in his cathedral.

The following passage is taken from Campbell's Lectures on Poetry, published in the New Monthly Magazine:

"Hesiod summarily explains the origin of evil, by throwing all the blame of it on the weak sex. Superstition has seldom exhibited man in a more ignoble light, than as the author of this fiction—a wretched being, attempting to wreak his discontentment with life, on the character of a timid helpmate dependent on him, more alive to suffering, and doomed to suffer more, than himself."

From the last Pamphlet published by the Essex Agricultural Society.

COL. PUTNAM'S FARM.

Col. Jesse Putnam's farm is situated in the North Parish in Danvers, about six miles from Salem. It contains about 114 acres; to wit—44 of tillage—40 of pasture—and 18 of wet or low-ground meadow. His wood land is not in Danvers. Most of his tillage land is covered with orchards of apple trees; of which about 1200 are large enough to bear fruit; and 400 have been planted, or grafted, from two to six years. He raises his own trees in nurseries; which he renews from time to time, to supply his own wants. He considers the spring the best time for transplanting trees. In this operation he digs the holes four or five feet in diameter, and two feet deep; into which, in planting the tree, he introduces rich soil, that the tree may sooner recover from the check it receives in the transplanting.* By giving such dimensions to the holes, the roots may be regularly spread out in every direction, without being crowded. He disapproves of making nurseries in very rich soils; because they will generally be transplanted to poorer soils, and so be sensibly and injuriously checked in their first growth. He thinks it better to transplant from a poor to a rich soil, than from a rich to a poor one. Most of his trees are grafted with winter fruit. In selecting his fruits, he is careful to choose the kinds that are good bearers, as well as of good qualities; grafting over again, with other fruits, such trees as are not sufficiently productive. Col. Putnam has found it beneficial to young trees, to wash them in the spring with a composition of lime, clay, fresh cow dung and water; as it removes the moss, destroys the insects that find harbours in the rough bark, and gives a smooth, vigorous and lively appearance to the trees. He has found it serviceable to vary the manures applied to his trees, according to the nature of the soil. He has frequently sown barley, or other grain, around them, and when 18 or 20 inches high, dug it in. This he has thought one of the best modes of manuring them; and (as well as every other way of manuring) should extend to three or four feet from the tree, all round; continuing this practice at least until the trees have attained a good size, and are in a good thriving and bearing state.

For several years past, he has annually broken up three or four acres of his pasture land, where principally covered with small bushes and moss, and planted the same with potatoes or corn; and when laid down to grass found himself amply compensated.

It has been his practice to plough, in the warm weather in August, the land intended to be planted the ensuing spring; at which time it is cross-ploughed. By ploughing when the earth is warm, he says the sod is better rotted, and more easily rendered fit for tillage crops. Ploughing late in autumn he thinks not advantageous. Thus cultivated one or two years, the land will be in a good condition for English grain and grass. The same land will need to be broken up again, as often as once in six or seven years.

"The raising and curing English hay (he remarks) occupies a large portion of our time;

and rewards our labor as well as any thing that is done on the farm: and the object of cultivating other crops is, in a good degree, to prepare the land for this most important crop.

The produce of his farm, in 1821 and 1822, as near as he could estimate the same, he states as follows:

	1821.	1822.
English Hay	24 tons	30 tons.
Oats for fodder	3 do.	4 do.
[Wet] Meadow Hay	8 do.	7 do.
Barley for fodder	0 do.	3 do.
Indian Corn	70 bush.	150 bush.
Potatoes	300 do.	300 do.
Barley	70 do.	cut for fodder.
Onions	0 do.	150 bushels.
Carrots	40 do.	90 do.
Turnips	20 do.	150 do.
Cabbages	10 doz.	30 doz.
White Beans	2 bush.	7 bush.
Green Peas for market	4 do.	50 do.
Summer Apples	130 do.	150 do.
Winter Apples	600 do.	600 do.
Pork	2000 lbs.	2000 lbs.
Pumpkins	2 tons.	4 tons.

He kept no particular account of his dairy; but his cows, six in number, had done well.

Col. Putnam's mode of making manure, he states as follows:

"In the autumn I clear the barn yard, and carry the manure into large and compact heaps, in the fields where it is intended to be used. The yard is then covered with turf, loam, or pond mud, and such other materials as are found on the farm, suited to making manure. These, together with the droppings of the cattle in the winter and summer, and the relics of their fodder, are mixed together in the course of the summer, and made into fine manure. This I use principally on my grass land; spreading it from the cart, after the grass is grown several inches.

"I have a cellar under my barn, in which the winter dung and urine of the cattle are collected. By mixing with these, in the cellar, meadow turf (or sod) coarse hay and corn stalks, the quantity is much increased. I also carry large quantities of materials to my hog pen, which is so situated as to be kept moist; and from the industry of the swine in preparing this manure for the field, I find more benefit from them than in any other way."

His usual stock consists of six oxen, eight cows, one bull, two horses, and several extra cattle to be sold in the spring, and from six to twenty swine.

Col. Putnam closes his statement as follows:

"Some of my [wet] meadows have been converted into excellent English mowing grounds, by carrying about six inches of gravel on to them in the winter. In the first place I divide a meadow into lots about three rods wide, by ditches—turning the turf bottom upwards—and taking care to have the middle of the lots the highest, so that they may be a little sloping towards the ditches. Plough the turf and gravel together, in the spring, and plant it one season with potatoes: the crop will be as good as in common fields. Then carry on one or two inches of top soil, and a good coating of manure; and from land thus prepared, I have obtained my largest and best crops of English hay."

From the Morristown Palladium.

Observing that a premium is offered by the Agricultural Society, for the greatest quantity of butter from three cows, I shall throw togeth-

er a few unconnected observations, for the benefit of those who may be inclined to enter in the contest.

Although we all know what a good cow yet, for form's sake, it will be best to begin describing the chief points to be attended. She should have horns wide apart and smooth thin head and neck, large dewlap, full broad back, large but not fleshy udder, large teats, broad and fleshy buttocks, long t and pliable. Good milkers are not very apt to grow fat, as the food runs to milk.

The size of the cows, and indeed of all horned cattle, should be proportioned to the fertility of the ground; large for rich, small for poor for on short pasture, a large beast will have time to rest and ruminate. It has been said that the longer any land has lain to grass, the better, and the more is the butter it will yield while the curdy substance of which cheese is formed, abounds more in clover, and new cold and moist pastures.

I must complain that the anxiety of our horned wives to make butter, injures the calves, who are killed so young that their meat resembles fish rather than flesh. This might very easily be prevented, and the animals suffered to live a month longer without stopping the churn. After the first week let the calf be fed with skimmed milk, thickened with two or three handfuls of Indian meal, daily, and give it twice every day two balls as large as a hen's egg made of Indian meal, one egg, and a little fish seed oil. An experiment was made of two calves, the one was permitted to suck thrice a day, the other treated as above, and at the end of a month the last was the largest and the best. Attention to this method would not only improve our veal, but increase our butter. Calves fatten best in the dark, because light is an excitement which renders them restless.

The practice of milking thrice a day, especially when cows are in good pasture, is recommended; each milking will give almost as much as if only done twice, for, when the udder is full, the milk begins to be absorbed into the body of the animal. This practice will be found not only to increase the quantity of manure, but of milk.

Milk should be poured into pans as soon as possible, and if carried far, or much shocked never gives abundant or good cream.

In order to find the richness of the milk from your different cows, pour the first of the milking of each into glass tumblers, and when the cream has risen, you can easily see which bears the thickest coat. Winter's milk, although less abundant, will be found to be richer than summer's.

Milk gradually increases in richness, from the first drop down to the very last. Take a tumbler full of the first, and another of the last; you will find that the first yields not one tenth part as much cream as the last; and the difference of its quality is as great as that of its quantity. She who by careless milking, leaves half a pint in reality, loses not only as much cream as the first five pints afford, but also all the part of the cream which gives richness and flavor to the butter, and dries up the cow into the bargain.

A milk pan should not be above three inches deep. The thickness and quality of cream said to be much improved by pouring the ne-

* In planting trees, the roots should be covered with earth at no greater depth than before their removal.

milk into a pan just taken out of boiling water, and covering it with another of the same.

It is said that a table spoon full of powdered altpetre, stirred, a few hours before churning, into as much cream as makes 12 lbs. of butter, will prevent the flavor of wild onion, and probably any other taste of foul pasture.

The cream that rises first makes the choicest butter; what comes afterwards is of an inferior quality. We may thus make two qualities of butter.

Butter cannot be made till the cream is somewhat sour; if you begin to churn before that time, half your labor is lost in souring it, which trouble a little vinegar, or one day's keeping will prevent.

The following receipt makes a sort of cream highly relished in every English farm house: Take common skimmed milk, beginning to sour, put it into a churn, and the churn into a barrel, which fill with hot water as high as the milk in the churn; cover all with a thick cloth, and let it stand six or eight hours. You will then find a thick sourish cream at top, which is esteemed a great delicacy when eaten with sugar. Underneath is a thin watery liquid which you separate from the cream as you please, but the best way is to draw it off by a spigot at the bottom of the churn. Nearly half the milk becomes cream, the goodness of which depends upon the sourness of the milk used, and the heat of the water in the barrel. For these no positive direction can be given, but a few trials will easily determine.

AGRESTIS.

NEW ENGLAND FARMER.

SATURDAY, MAY 10, 1823.

The Farmer's and Gardener's Remembrancer.

MAY.

PLANT MORE POTATOES.—Notwithstanding we are very friendly to Indian corn, as well as a variety of other crops which come into the customary rotations of our New England farmers, still we think the potatoe on the whole, the most valuable plant, which the bounty of Providence ever yielded to the necessities of man. In some situations, and on some accounts, we are inclined to the opinion that oats are a very proper crop to precede potatoes. A writer in the Massachusetts Agricultural Repository (vol. v, p. 331, 332,) says, "It appears to us best, all things considered, that the first crop after turning over sward, should be oats. The reason why an oat crop should precede a potatoe crop is, that it not only pays well by its product for the year's labor, but chiefly because it enables the husbandman to deepen his ploughing, preparatory to the second year's series in the rotation." Mr. Henry Stevens, likewise, of Barnet, Vermont, who appears to be a very judicious and experienced cultivator, in a communication, published in our paper (No. 33, p. 258,) says, "I make oats, principally, and generally speaking, my first crop in the line of rotation of crops;" and it appears from the same valuable communication, that corn, potatoes or turnips were, generally, his second crop. Potatoes, however, will answer a very good purpose as a first crop after land is broken up.

We have already, in No. 36, p. 286, given pretty copious observations relative to planting potatoes; still, we believe something more may

be profitably said on this subject. The land should be ploughed deep for this crop; because roots will commonly grow as low as the soil is stirred, and no deeper. And the more the ground is pulverized before planting the better the crop.

Perhaps green sward ground ought to be mentioned here as an exception. I have had the largest crops on such land even with one ploughing, and that just before planting. I account for it thus: Potatoes want air; such land affords it from the hollows under the furrows in no small quantity, both fixed and putrid, and in the greatest abundance towards the end of the summer, when they require the greatest quantity of nourishment. Those roots are accounted best for eating, which are raised without dung. I once had a middling crop, by putting a handful of old weather beaten salt hay in each hill. New land burnt, produces excellent roots, and a large crop, without any manure but what was made by the burning; sometimes not less than a peck in a hill.*

It is a fashionable, and we have reason to believe it to be a profitable mode of raising Indian corn and potatoes together in the same piece by planting rows or drills of each alternately. The advantages of this mode of culture are said to be these. Indian corn, in order to afford the greatest quantity of ears, requires to stand more widely separated, than it is when grown in the usual way; while, at the same time, other plants of smaller growth may be raised in the intervals, without essentially injuring the growth of the corn. In this way, we are told, that nearly one fourth additional product may be obtained.

We should, undoubtedly, be ridiculed if we were to direct to *soak* potatoes in water before planting them. We shall, therefore, give no such directions, but merely state a fact. A person told us he planted some potatoes which had been accidentally water-soaked by water running into his cellar early in the spring. He could not say how long they were immersed in water, but he said they were not fit for eating, and he apprehended that the vegetative principle was destroyed. He planted them, however, together with some of the same kind, from the same heap, which had remained above water, and marked the hills where the soaked potatoes had been planted. The soil was dry, and the season, which followed, uncommonly so. The potatoes which had lain in the water flourished much better and produced much more abundantly than those which had remained dry. This accidental discovery, may, perhaps furnish a hint leading to a useful result. We would, at least, recommend to wet seed potatoes, intended for a dry soil, and then to roll them in plaster immediately before planting.

There have been many complaints that the best kinds of potatoes degenerate by being planted many years in succession, and it becomes necessary to seek new varieties. These may be obtained from seeds, but it is a troublesome process, and we believe, not always successful. We are assured by a practical farmer, that by selecting the largest and finest potatoes for seed, for a series of years, he found the kind to *improve* under cultivation. Here then is an important fact to corroborate what is stated in N. E. Farmer, p. 286, recommending the best and largest potatoes for seed.

* Deane's N. E. Farmer, Art. Potatoes.

Mr. Bordley says, "if maize [Indian corn] is 4 feet apart in the rows, and the interval ground between the rows 7 feet, the clusters or hills of maize are 1550, say 1500 on an acre. Between the hills of maize, in the rows, may grow cabbages or potatoes. One cabbage in that space; or two hills of potatoes, a foot apart. Along the intervals turnips 10 or 12 inches apart; or ruta bage the same distance, sown in May between the slope or space instead of cabbages." The intervals themselves may be sowed with turnips or ruta bage after the last hoeing of the corn, at any time previous to about the first of August.

A writer for the Bath Society papers, vol. iii, page 106, says, "The potatoe sets should be cut a week before planting, with one or two eyes to each, and the pieces not very small; two bushels to an acre of unslacked lime should be sown over the surface of the land as soon as planted, which will effectually prevent the attacks of the grub." Another writer in the same collection, vol. vi, p. 346, says, "Lime, marle, chalk, soaper's ashes and rags, do but little good; and in some instances do harm." We have no doubt but quick or caustic lime, put into the hill at the time of planting, or in any way coming in contact either with the seed potatoes or the growing plants, will corrode and injure them. But if applied to the top of the soil at the time of planting the potatoes, it will become so mild or effete as to do no injury to plants, but in many cases produce a great benefit as well to the soil as to crop. And if quick lime effects nothing more than the destruction of insects, its application is highly expedient. Some other writers recommend lime as a manure for potatoes on cold moorish soils. We think it worth the trial, with the precautions mentioned above.

Another British writer advises to cut large potatoes, when planted, into slips of about two ounces in weight each, and says that "large potatoes planted whole at any distance, and whole potatoes or pieces at a nearer distance than twelve inches in the row, send forth so many stems, that like cattle on over-stocked pastures, they starve each other, and the produce is dwarfish. Shoots, small pieces, and potatoes confined to one stem, or a very few, resemble cattle upon pasture not nearly stocked; which therefore, cannot make proper returns to the owner." He likewise asserts that "an acre of very large potatoes would require a quantity of seed so great as to deter any person from planting them; nor is it likely, that the productiveness of potatoes will continue to increase with their size. There is certainly a *maximum* and *minimum*, a *ne plus ultra* in the quantity of potatoe seed, as well as in every thing else. The middle sized of the human species, as well as the different species of other animals, are the best calculated to undergo labor and fatigue; they are, therefore, more perfect in their kind, and consequently fitter to answer all the purposes of their creation. May we not argue from analogy, that potatoes of a moderate size are the most perfect in their kind, and consequently the best fitted to send forth those vigorous shoots, which ensure a healthy progeny? This reasoning, he says, is confirmed by a great number of experiments made with whole potatoes, cut potatoes, and large and small potatoes." We do not wish to be responsible for the correct-

ness of this theory, but submit it to the consideration of our readers.

FIELD CULTURE OF PARSNIPS.—"The best soil for parsnips is a rich deep loam; next to this is sand, or they will thrive well in a black, gritty soil; but will never pay for cultivating in gravel or clay soils; and they always are the largest where the earth is deepest. Dry, light land is suitable for them, but wet, stiff or hide bound land is destructive. If the soil be proper they do not require much manure. The writer hath obtained a very good crop for three successive years, from the same land, without using any; but then he laid at the rate of forty cart loads of sand per acre upon a very stiff loam, and ploughed it in, he found it answer very well, from which he concludes that a mixture of soils may be proper for this root.

"It is most advisable to sow the seeds in drills at about 18 inches distant from each other, that the plants may be more conveniently hand or horse hoed; and they will be more luxuriant if hoed a second time and are carefully earthed so as not to cover the leaves."*

Parsnips are said to be a very valuable food for neat cattle, particularly for milch cows, which give milk in greater quantity and of a better quality when fed on parsnips than when supplied with almost any other food. They may be left in the ground through the winter, and are of great use for feeding cattle and swine in the spring before grass is grown, and may be boiled or steamed, tops as well as bottoms, for feeding hogs, till early potatoes are ripe enough to dig.

FORCING YOUNG FRUIT TREES TO BEAR.—Young trees may be made to show specimens of their fruit, sooner than they otherwise would, by making a cut in the bark a quarter of an inch wide, round the branch or bough which you wish to compel to bear fruit. The branch, however, is always injured, and sometimes destroyed, by this process. The best and safest way to effect the early exhibition of fruit in young trees or barren boughs, is to tie wires or strings about them tight enough to impede, in some degree, the circulation of the sap. This is less likely to injure the tree or branch than cutting off the bark, and is said to be equally effectual in causing the production of fruit.

* Bath Society papers, vol. iv, p. 252.

A correspondent of the N. Y. Commercial Advertiser recommends the planting of sunflower seeds, believing the leaves of these plants, which grow very large, have the property of absorbing the *miasma* or bad air in the atmosphere, and consequently purifying the air.

Vermont Copperas.—Dr. John Lock has given to the public a description of the Copperas mines and manufactory at Stafford, Vt. from which it appears that four men had manufactured one hundred tons of copperas in a year, besides carrying on the business of a small farm.

Glue.—An ingenious cabinet maker (says a late London paper) has, from long experience, proved that glue made from India rubber, is very superior to the common manufactured kind of that article, when used as a cement for furniture, and never gives way or loosens in the joints, which is too often the case with the glue made from animal paste.

PATERSON MANUFACTORIES.

Rejoicing in every circumstance which has a tendency to render our country independent of the rest of the world, and to develop its enterprise, ingenuity, wealth and resources, we cannot but hail with delight such intelligence as the following, let it come from what quarter it may; but we must, in candor, confess we enjoy it with peculiar zest when it relates to a portion of our native state, to whose prosperity and honor we are, from affection and gratitude, most heartily devoted. But to the information:

The "Voice of Passaic," published at Paterson, (New Jersey,) enumerates the following manufacturing establishments in that town:

Ten cotton factories, having now in operation twenty thousand spindles.

New factories erected, which, in about three months, will put in motion about twenty thousand spindles more.

Making 40,000 spindles employed in spinning cotton.

Three extensive woolen factories.

Two large duck factories, supplying in a great measure, our navy with canvass, and working up more than a ton of flax per day.

Three manufactories of machinery, one of which is stated to be the most extensive and complete in the United States.

Three very extensive bleach greens.

Two brass and iron foundries.

Besides paper, grist, saw, rolling, and slitting mills, &c. &c.

With the great natural advantages which Paterson possesses, and the prospect it has of deriving, at no very distant day, immense benefits from the contemplated canal from the Delaware to the Hudson, we may venture to predict that it will soon attain to a degree of usefulness and importance of which every Jerseyman may well be proud.—*True American.*

FOREIGN.

LATEST FROM EUROPE.

The packet ship *Corinthian*, in 35 days from Liverpool, has arrived at New York, bringing London papers to the 22d, and Liverpool to the 25th of March, inclusive. The following summary of their contents is from the New York Daily Advertiser:

The most important intelligence brought by this vessel is, that hostilities had not commenced between France and Spain. There appears to have been the same show of preparation, the same engagedness to begin the war at some time or other, but no beginning. The French army had not, at the latest advices, entered Spain. By an article in the *Courier* of the 22d, taken from a Bayonne paper of the 15th of March, it is said, "Almost the whole of the Duke of Angoulême's establishment is here, and his Royal Highness is expected before the end of the month." On the evening of the 19th of March, Lord Liverpool, in answer to an inquiry by the Marquis of Lansdown, said, "that the hopes which he in common with other persons entertained with regard to the maintenance of peace, had considerably abated; but it was not stated, neither could it be so stated consistently with truth and fact that all hopes were extinguished." Mr. Canning had previously said in the House of Commons, "that the hope of avoiding war, which his Majesty's government had previously cherished, was, if not totally extinguished, at least very remote, and receding fast from view." The editor of the *Courier* adds—"It is remarkable that Lord Liverpool did not say a word respecting the possibility of this country's keeping out of the contest."

It appears by the accounts, that there is much of the bustle of preparation in France, which certainly, under different circumstances, would satisfy any body that war was inevitable. Such would seem to be the pro-

bability; but it is equally certain that matters are managed differently in Europe from what they were formerly. Bonaparte's mode of proceeding was to march directly to his object; if necessary to save time he traversed a neutral country without ceremony, and made his declaration of war by striking a decisive blow in the heart of his enemy's country. The latest fashion is more slow and solemn—much parade is exhibited, much talk had, and a great display made of arming, collecting and organizing armies, and in some instances, after having marched and threatened and bullied, affairs have been hushed, and every thing blown over without a battle or even a skirmish. We are influenced more by the declarations of the British ministers than by the appearances observable in France.

A decree passed the Spanish Cortes on the 5th of March, directing the government to interdict all commercial intercourse with Spanish ports to the Powers who had withdrawn their ministers from Madrid.—These orders have been received at Cuba, where French, Austrian, Russian and Prussian vessels are forbidden admission.

From France.—French papers have been received in New York as late as the 24th March. Great activity appears to prevail in the movements of armies towards the Spanish frontier.

The army of the faith, assembled in France and on the borders, amounts to 32,000 men. Preparation were making at Perpignan on the 22d, for the reception of the Duke D'Angoulême. It would appear from this movement that the Duke contemplated superintending the entrance of the French army from the Pyrenees, and subsequently would move to Bayonne which is at a considerable distance, to witness the march of the other division. The Duke was preceded by Marshal Moncey. The army of the faith is paid and fed by the French; and it is evident that more is calculated upon the effect of gold than from the force of arms.

Nothing of importance was transacted in the French Chamber of Deputies on the 22d. The opposition benches were empty.

Accounts from Vienna mention that Austria will maintain a strict neutrality, and this report has produced a considerable rise in their funds.

The factious bands of Navarre, to the number of 1000 men, forming three battalions, entered France by the mountains, about St. Jean Pied de Port, on the 11th, 12th and 14th. Charles O'Donnel has gone to supply them with arms, &c. The inhabitants had refused to give them quarter in their houses, which has caused some disturbance.

The Portuguese army is in full march for the frontiers, which they will pass the same time the French army crosses the Pyrenees.

Late accounts from Constantinople continue the assurances of peace with Russia, and that the commercial relations with that country were about to be restored.

From Portugal.—Letters from Lisbon to Feb. 22d mention that a great scarcity of grain was experienced in Portugal, and that the ports were open for the admission of Indian corn, rye and barley; and it was expected would be for wheat.

Important from Mexico.—Papers have been received at New York, containing intelligence from Vera Cruz to the 8th of April. By this it appears that Iturbide is deposed, and a change has taken place in the dynasty of Mexico. Only 700 troops remained faithful to Iturbide, who had not only abdicated, but, contrary to the advice of his officers, had thrown himself on the mercy and generosity of the Congress. He was taken into custody, but remained at his seat near Mexico, under charge of General Bravo. He requested permission to retire to a foreign country, but was not allowed that privilege. It is thought that he will either lose his head or be doomed to imprisonment for life. The Congress of Mexico have named three individuals to assume the executive power.

Longevity of the Orange Tree.—There is an Orange tree still living and vigorous, in the orangery at Versailles, which is well ascertained to be 400 years old. It is called the Bourbon, having belonged to the celebrated constable of that name, in the beginning of the 14th century, and was confiscated to the crown in 1522, at which time it was 100 years old.

Twelve days later from London.

The Ship Monroe arrived below New York on Monday evening last, in 23 days from Liverpool, bringing London papers to the 4th of April.

A Postscript to the Mercantile Advertiser of Tuesday, dated 3 o'clock, A. M. contains the following:

DECLARATION OF WAR.

Sun Office, London, April 3. Second Edition.

Government have received the DECLARATION OF WAR BY FRANCE AGAINST SPAIN, as well as the Manifesto of the French Government on its armies entering Spain. How far Ministers may think proper to give publicity to these documents we cannot pretend to judge.

The Liverpool papers of the 5th appear to doubt the above intelligence, and state that no other London paper than the Sun published it.

The previous accounts stated that the French army would enter Spain on the 14th of April.

The King of Spain set out from Madrid for Seville, on the 20th of March, with a guard of 6000 men.

DOMESTIC.

At a term of the Circuit Court of the United States held in Portland last week, Jedediah Elliot and Jonah Austin, two old revolutionary soldiers, were tried on an indictment for wilful misrepresentation of the amount of their property made under oath, in order to entitle them to the benefit of the provision of the act for the relief of Revolutionary Soldiers. They had received their pensions since the first establishment of the act. It appeared on the trial that they both held leases of small farms in the town of Windham, the place of their residence, a knowledge of which they had suppressed. It was thought by many that the false representation was rather the result of ignorance than of premeditated rime. Austin was acquitted, and Elliot received the following sentence, viz: "that he should pay a fine to the United States of ten dollars, be imprisoned sixty days, and stand in the pillory one hour." The latter part of this punishment, the Court observed, was imposed because it was absolutely required by statute; but the District Attorney was requested to use his influence with the President to obtain the remission of that odious part of the sentence, which the Court had no power to omit or avoid.

The Mummy.—Messrs. Van Lennep & Co. of Smyrna, have sent to this city, by Capt. Edes, a Mummy.—It is from Thebes; and we understand is to be exhibited for the benefit of the Dispensary and the General Hospital.

Last week a Rose Bush, in a flower pot, was sold at auction, in this city, for \$11.50. Salmon were sold for \$1.50 a pound; and the first one brought to market this season (weighing 21 lbs.) was sold for \$40.

Eggs are sold in Philadelphia market at 8 cents a dozen. Beef, in the same market, prime pieces, are sold at 12 cents a pound.

A hoghead of Tobacco, raised in Frederic County, Maryland, and inspected in the city of Baltimore, a few days ago, sold for \$35 per hundred.

Rye and Potatoes imported.—The Electra, a vessel from London, brought one thousand barrels of rye to one house in Philadelphia; and Potatoes are brought to New York by most of the vessels from Ireland. We hope our New England farmers will soon be able to undersell the importers of the produce of their own fields.

Fishing in Rhode Island.—For some time past (says the last Providence American) our market has been plentifully supplied with fish of various kinds, which have been readily sold at good prices. A few days since, one of our enterprising fishermen took from the river above Central Bridge 3000 pounds of fine bass at one haul.

A Mr. Gent, of Abbeville, (S. C.) upon a bet of 100 dollars, lately made in one day, between sun-rising and sun-setting, seventy five bed-screws, with their taps complete, equal in size and quality to those usually imported.

A house in New York was lately set on fire by an East India Cracker fired by a lad from an adjoining yard.

The Pirates.—It would appear by the following article from the Albion, that the late statements respecting the destruction of Pirates, have no foundation in truth.

"A letter has appeared in several papers dated from the United States' ship Decoy, off Havana, April 1, which mentions that the crew of his Britannic Majesty's frigate Hyperion were instrumental in capturing the pirates who had escaped from La Cata, taken by the Grecian armed cutter.

We have good authority for saying that the Hyperion was on the other side of the Island of Cuba, and the story of course, respecting the "captain in his gig," has no foundation in fact. There were twenty or thirty horses on shore ready for the pirates, most of which were mounted by the British tars, who pursued the villains into the woods. Among the pirates were two Americans, one of whom being wounded and unable to escape, in a fit of desperation ran his sword through his heart, and the other to avoid the fate which impended over him, cut his throat in the presence of the sailors.

It is asserted that the schooner Fox has reported, that "they had taken and destroyed the greater part of the pirates on that part of the coast." At the date of the sailing of his Majesty's frigate Athol, which we believe is the latest arrival from that quarter, one vessel only, the Pilot, had been taken from the pirates, and but one man captured in her. There is no truth in the story of the British gun brig having been captured by the Pirates."

Lieut. Com. Henley, late of the Ferret, has returned from the West India station, on account of ill health. He states that Com. Porter had made such arrangements, as would enable him to receive information from, and communicate with every detachment of his squadron with the greatest expedition; and their cruising ground had been so allotted, as to afford the greatest security to merchant vessels, by convoy, and the most prompt assistance in cases of aggression from the Pirates, to all vessels going to or coming from ports on the North side of Cuba. Lt. H. also states, that the rendezvous at Allenton was very pleasant, and the soil capable of producing every description of vegetable productions, though the water was not good. A navy hospital was to be erected, under the orders of Surgeon Williamson, about two miles from Allenton, where the water was pretty good. A hotel was also to be established by one of the proprietors of the Island.—Gazette.

John Dodge, Esq. of the house of Marple, Dodge & Co. established at Cape Haytien, has arrived passenger in the Victory, from that place, and reports favorably of the peace, prosperity, and general happiness of Hayti; he speaks in the highest terms of the justice and magnanimity with which the government is administered; and of the great influence which the example of the public officers had given in the encouragement and promotion of Agriculture—the rich and golden mine of the country. He also states, that the recent proclamation of President Boyer, interdicting all commercial intercourse, or trade, with the neighboring Islands, will operate greatly to the advantage of the U. States, as being the nearest foreign country, and capable of supplying the Haytiens with every article they may want, either of foreign or home fabrics, or the productions of our native soil, at the earliest moment.

A Pelican was wounded and taken in the Alleghany River, at this place, on Tuesday last, by Mr. Sheldon. He shot at it from the Bridge, broke one of its wings, and took it in the river, below the Point. This immense bird measures from the tip of the bill to the end of the tail, 5 feet 1-2 inches; from tip to tip of the wings, 8 1-2 feet; in height of the body 1 foot 7 inches; neck 1 foot 6 inches long; head and bill 1 foot 8 1-2 inches; mouth 1 foot 6 inches; round the body 3 feet. The pouch under its mandible would contain 3 quarts. The bird is very poor, and not supposed to weigh 16 pounds.—Pittsburgh, Pa. paper, April 25.

Yellow Jessamine flowers poisonous.—On Sunday the 20th April, a small child of Mr. James Broughton, of Edenton, N. C. aged about two years, after eating a number of Yellow Jessamine Flowers, died in the space of half an hour. In a minute or two after eating them she became perfectly blind, and expired in the time above stated.

It is stated in the Nantucket Inquirer, that there were imported into Nantucket and New Bedford, during the year 1821 and 1822, comprising the average term of one whaling voyage, in about a hundred vessels owned in those ports, upwards of 4,200,000 gallons of whale and spermaceti oil.

Mr. English, the American traveller in Egypt, relates the following circumstance.

"I saw to day," he says in his journal, "a singular mode of navigating the river (the Nile); a man who apparently was travelling down the river with his whole family, had placed his youngest wife and her two young children on a raft made of bundles of corn-stalks (stems of Hloleus) lashed together; he himself swam by its side to guide it, while he kept his old wife a swimming and pushing it by the stern; and in this way they proceeded down the river."

TREE BRUSHES.

FOR SALE, at the Agricultural Establishment, No. 20, Merchants' Row, opposite the east end of the Old Market, a few of those highly and much approved TREE BRUSHES, for destroying Caterpillars, and which have been so highly recommended by the Hon. Timothy Pickering, in his communication to the Essex Agricultural Society. May 10.

PRICES OF COUNTRY PRODUCE, &c.

[Revised and corrected every Friday.]

		FROM	TO
		D. C. D. C.	
ASHES, pot, 1st qual.	ton.	185 00	190 00
pearl do.		175 00	178 00
BEANS, white,	bush	1 00	1 10
BEEF, mess, 200 cwt.	bbl.	9 00	9 25
cargo, No 1,		8 25	8 50
" No 2,		6 50	6 75
BUTTER, inspect. 1st qual. . .	lb.	12	14
" 2d qual.		10	11
small kegs, family,		15	16
CHEESE, new milk		7	9
FLAX		8	9
FLAX SEED	bush	25	30
FLOUR, Baltimore, superfine,	bbl.	7 75	8 00
Genessee		7 75	8 00
Rye, best		5 00	5 50
GRAIN, Rye	bush	72	75
Corn		67	72
Barley		63	65
Oats		40	42
HOGS' LARD, 1st sort	lb.	9	
HOPS, No 1,		10	12
LIME,	cask	1 25	1 50
OIL, Linseed, American . . .	gal.	65	60
PLASTER PARIS	ton.	3 00	3 25
PORK, Navy Mess	bbl.	12 00	12 50
Bone Middlings		14 00	14 50
Cargo, No 1,		12 00	12 50
Cargo, No 2,		11 00	11 50
SEEDS, Herd's Grass	bush	2 25	2 50
Clover	lb.	8	
WOOL, Merino, full blood, washed		55	65
do do unwashed		45	48
do 3-4 washed		45	55
do 1-2 do		40	45
Native		38	40
Pulled, Lamb's, 1st sort . .		55	60
do Spinning, 1st sort . . .		50	55

PROVISION MARKET.

BEEF, best pieces	lb.	8	9
PORK, fresh		8	9
VEAL,		6	7
MUTTON,		5	7
POULTRY,		10	12
BUTTER, keg & tub		15	16
lump, best		16	18
EGGS,	doz.	11	12
MEAL, Rye,	bush	75	80
Indian,		75	80
POTATOES,		40	45
CIDER, liquor,	bbl.	1 50	2 25
HAY, best,	ton.	20 00	22 00

FOR THE NEW ENGLAND FARMER.

INVOCATION TO SPRING.

[Written during a North-east storm in May.]

Daughter of Zephyr and the Solar Ray,
Thy fairy footsteps please to print this way.
It is a long while since our clime you visited,
Though never lady has been more solicited.
Why stand aloof, and veil thy beauties thus,
As if thou wert too exquisite for us.
Yet deign to dwell with Afric's tawny train,
While the swart Ethiop woos thee not in vain.
Why dangling thus about the torrid zone,
While Flora, Ceres, and Pomona moan
Thy long protracted absence? Miss, I fear
Thou hast forgotten to adorn the year,
As thou wert wont with wreaths of fragrant flowers,
For thou didst give us nought but leafless bowers
And sorry evergreens the first of May,
Wherewith to celebrate thy holiday!
Why should we shiver thus, week after week,
Exposed to Boreal blasts so very bleak,
That while we shudder under their control,
We think them missionaries from the pole,
Sent here by some Satanical device,
In order to convert us—into ice?

Is it for any sore neglect of ours,
That we're half frozen in the month of flowers?
If so, accept this Ode upon condition
It makes atonement for our sad omission;
Receive this trifle for the donor's sake,
The best peace offering he knows how to make.

My almanac has prophesied thy coming,
But sure the rogue who made the thing was humming,
Leagu'd with some selfish seedsman I'll be bound,
Who wish'd our seeds all rotted in the ground,
That so our horticulturists might hop
To get a fresh assortment from his shop.

The earth, the sea, the atmosphere and sky
All seem to give our calendars the lie,
Which call this Spring, when every body knows
Winter still rides on every breeze that blows.
Now half resolv'd, the other half aghast,
Still shrinking from th' intolerable blast,
Still shuddering at the gelid north-east storm,
Spring half discloses her scaphic form;
But like some moody half-pleas'd nymph appears,
Whose smiles just lighten through a clond of tears.

Spanish Inquisition.—A statement has recently appeared, of the number of victims to this terrible engine of superstition, cruelty and death, the bare recital of which chills the blood, and fills the mind with horrid images of suffering humanity, under the most excruciating tortures, which awful depravity, disguised in the robes of religion, could invent. The table is extracted from a critical History of the dreadful tribunal, by J. A. Lorente, one of its late Secretaries, and may therefore be considered as indisputably authentic. It exhibits a detailed list of the respective numbers who have suffered various kinds of punishment and persecution in the Peninsula alone, independent of those who have been its victims in other parts of the world, for a period of three hundred and fifty-six years, viz. from 1452 to 1808, when the Inquisition has existed, under the administration of forty-four Inquisitors General. Within that term, it appears that in Spain have been burnt, thirty-one thousand seven hundred and eighteen: died in prison, or escaped by flight and were burnt in effigy, one hundred seventy-four thou-

sand one hundred and eleven; and suffered other punishments, such as whipping, imprisonment, &c. two hundred eighty-seven thousand, five hundred and twenty-two; making a grand total of eight hundred, thirty-six thousand, six hundred and fifty-one. The greatest number of victims under any administration, was that of Terquemada, the first Inquisitor General; who presided from 1452 to 1499, a long and bloody reign of forty-seven years, during which, eight thousand eight hundred victims were burnt, six thousand four hundred died or escaped by flight, and nine thousand ninety-four suffered various other punishments; being in the whole, one hundred five thousand two hundred ninety-four, or two thousand two hundred forty per annum.

N. Y. Statesman.

Where true wisdom is, there surely is repose of mind, patience, dignity, and delicacy. Wisdom, without these, is dark light, heavy ease, sonorous silence.

A great talker never wants enemies; the man of sense speaks little and hears much.

The father of the British Lord Abington, who was remarkable for the stateliness of his manners, one day riding through a village in the vicinity of Oxford, met a lad dragging a calf along the road, who, when his Lordship came up to him, made a stop, and stared him full in the face. His Lordship asked the boy if he knew him. He replied, "Ees." "What is my name?" said his Lordship. "Why, Lord Abington," replied the lad. "Then, why don't you take off your hat?" "So I will, Sur," said the boy, "if ye'll hold the calf."

BELLFOUNDER,

The Wonderful Norfolk Trotter, imported July 1822, from England,

WILL STAND THIS SEASON, 1823,

At Twenty Dollars, and One Dollar the Groom. The money to be paid to the Groom at Covering.

THIS celebrated Horse is a bright bay, with black legs, standing 15 hands high; his superior blood, symmetry and action excel those of every other trotting Stallion. He is allowed by the best judges in Norfolk to be the fastest and best bred Horse ever sent out of that County. He has proved himself a sure foal getter, and his Stock for size and substance are not to be surpassed; they are selling at the highest prices of any Horses in Norfolk.

BELLFOUNDER was got by that well known, fast and high formed Trotter, OLD BELLFOUNDER, out of Velocity, which trotted on the Norwich road, in 1806, *Sixteen miles* in one hour, and though she broke fifteen times into a gallop, and as often turned round, won her match. In 1808 she trotted *Twenty-eight miles* in one hour and forty-seven minutes, and has also done many other great performances against time.

BELLFOUNDER, at five years old, trotted *Two miles* in six minutes, and in the following year was matched for 200 guineas to trot *Nine miles* in thirty minutes, and he won easily by thirty-two seconds. His owner shortly after challenged to perform with him *Seven miles and a half* in one hour, but it was not accepted. He has since never been saddled or matched.

OLD BELLFOUNDER was a true descendant from the original blood of the *Fireways*, which breed of Horses stands unrivalled, either in this or any other Nation.

BELLFOUNDER is strongly recommended to the public by the subscriber, as combining more useful properties than any other Horse in America, and will stand, during the season, at his Stable in Charlestown, where all inquiries, post paid, will be attended to.

SAMUEL JAKUES, JR.

Charlestown, Mass. April 25, 1823.



AGRICULTURAL ESTABLISHMENT,

NO. 20, MERCHANTS' ROW,

At the East End of the Old Market.

FOR sale as above, a variety of the most approved single and double mould board Ploughs,
C. Howard's improved cast iron mould board, with wrought Shear and Coulter,
Cast iron do. do. do.
J. Seaver & Co's. do. do.
Bigelow's wrought do. do.
Warren's much approved common Ploughs,
Sinclair's side hill do. do. do.
Howard's much improved Cultivator, an implement highly esteemed for its use and utility in drill cultivation,
Beaton's Scarifier,
Bennet's Broad Cast,
Seed Sowing Machines, calculated for large and small seed,
Eastman's improved Straw Cutter,
Safford's new invented Straw Cutter, much improved,
Common hand Straw Cutters,
An English Vegetable Cutter,
Stevens' patent steel spring Hay and Manure Forks,
Steel spring Potatoe Hoes,
English cast steel broad Hoes,
Common and steel do. do.

A great variety of Garden and other Agricultural Implements.

Tree Brushes, for destroying Caterpillars, an article highly recommended for that purpose, by the Hon. Timothy Pickering, whose communication on this subject appeared in the New England Farmer, April 26, page 303.

May 3.



AGRICULTURAL & HORTICULTURAL SEEDS.

JOSEPH BRIDGE, No. 25, Court Street, has just received, per London Packet, a variety of

GARDEN AND FIELD SEEDS,

which added to his former extensive assortment, makes the most complete variety, probably in the U. States. Among them—300 lbs. Carrots, 200 lbs. Beets, 50 lbs. Mangel Wurtzel, 200 lbs. Ruta Baga, 30 bush. Peas, 100 Raddish. of sorts; Lettuce, Cabbage, Cauliflower, Kale, Brocoli, Sweet Marjoram, Thyme, Summer and Winter Savory, Sage, Hyssop, Fennel, Dill, Salsify, Scorzenera, Endive, Red and White Clover, Red Top, Foul Meadow—with an extensive collection of Flower Seeds, Bird Seeds, &c.

GARDEN TOOLS, viz: Pruning and Budding Knives, Pruning Saws, Transplanting Trowels, Garden Reels and Lines, Edging Irons, &c. Flower Pots constantly on hand.

May 3.

TERMS OF THE FARMER.

Published every Saturday, at THREE DOLLARS per annum, payable at the end of the year—but those who pay within sixty days from the time of subscribing will be entitled to a deduction of FIFTY CENTS.

No paper will be discontinued (unless at the discretion of the Publisher) until arrearages are paid.

Complete files from the commencement of the paper in August can be furnished.

Agents who procure seven subscribers, and become responsible for the payment, will be entitled to a copy gratis, and in the same proportion for a larger number.

NEW ENGLAND FARMER.

PUBLISHED BY THOMAS W. SHEPARD, ROGERS' BUILDINGS, CONGRESS STREET, (FOURTH DOOR FROM STATE STREET.)

VOL. I.

BOSTON, SATURDAY, MAY 17, 1823.

No. 42.

From the Mass. Agricultural Repository.

The following letter from the Hon. John Welles, to the Corresponding Secretary, on Forest Trees, relates to a subject of the greatest importance to the State of Massachusetts, a State destined to become very populous by its industry, its capital, and its superior advantages of all descriptions for extensive manufactures. The best mode of preserving our wood-lots from decay, can be ascertained only by extensive and frequently repeated experiments. No man in New England has enjoyed greater opportunities than Mr. Welles, of making and witnessing such experiments.

I some time since, in a communication to the Agricultural Society, made some observations upon the growth and culture of the apple tree, (No. 1, vol. 6) with a view of stating from experiment how the natural disadvantages of soil might be counteracted.

It is now my intention to resume the subject, for the purpose of leading to a more general inquiry as to the laws which govern and regulate vegetable life, as well in that majestic production of nature, the Forest Tree, as in the fruit-bearing tribes.

How then amongst us is vegetable life affected by climate? How, by other causes? and what the duration of the several kinds of Trees?

That these questions may be rightly answered, known facts are to be collected from the observing; and such results must be obtained as may lead to the most accurate decision of which the subject is susceptible. Thus, whilst in this great process of nature, general knowledge is enlarged, it becomes the immediate source of practical utility. Or in other words, experience, gathering strength as time passes by, becomes our unerring guide. Much has already been done by the publication of extracts from Lichaux, relating to the varieties in the American forest. But if with a like zeal we can obtain from others of the present time, whose information is competent, known facts as to the age of trees; there is no doubt sufficient knowledge might be had, to establish a general system accurate enough for every wished for purpose.

And why should not the laws which influence vegetables, be as definite as those which govern animal life? What one generation cannot do, let two effect. And as to exceptions, let it be remembered, that they do not disprove but establish general laws.

A time will come (especially if coal is not found more abundantly with us) when from the increase of our population and our manufactures, the cutting off and the re-growth of our forests, or to use a more appropriate term, our wood lots, will form an important subject of calculation. It will be desirable to estimate with precision, at what period the earth will again present a renewed growth; as well as the most beneficial time and mode of using the axe. Some indeed may be so favored with length of days as to avail themselves of this labor of the earth more than once. But if not to their successors and to the community, the subject is highly important and replete with interest. The diversity of opinion on these topics, and the occasional and scattered instances of the great longevity of trees, while they

render the subject more intricate, make it also more essential as a topic of enquiry. These variations from the general law in this country, as well as other similar ones in past ages and in the present times, should form no impediment to the general rule.

As relates to our forests or wood land, it is a fact generally known, that where they are cut off and a renewed growth is wished for, if they are of hard wood, they should be cut when the sap is down, or the leaf off the tree. This being mostly in the winter season, is most convenient to our husbandmen. It is considered as very essential by European writers as well as some of our own country, that trees should be cut as near the ground as possible, as a means of throwing back the suckers more toward the roots. This practice is dictated also by economy as a saving of the best part of the wood and timber. In the publications of the Scotch Agricultural Board, by Sir John Sinclair, it is observed, "that of the trees which being cut down send forth no shoots, are the beech and the whole family of the pines." They are considered in Europe "as limited to one generation." There is a mode here, however, as to the latter tree which has the effect of producing a succession. After cutting off a pine lot, the plough is introduced, a crop of rye is obtained beneficially, and the seeds of the pine which were on the surface being thus buried in the soil, a new and rapid growth is produced. This is aided if one or two middle sized seed-bearing trees are left on an acre. It is said that in some parts of our country there is a change or a succession of different growths, even of different genera or families. Upon this seeming incongruity I cannot reason, from want of experience.

As to the important principle, at what age or how often it is best to cut off our wood, we should on the whole be disposed to name a period between 40 and 50 years, as most favorable for what is termed hard-wood trees. The writer here refers not only to a variety of facts as to lots in different parts of this state, but to opinions of many judicious farmers. This is corroborated by a number of experiments, where portions of a lot have been cut off at the period of time above stated, and the product of which considerably exceeded that of other parts of the same lots, which had been left standing, in the aggregate quantity upon an acre. This was the more discernible where the ground had been cut clean; a practice which cannot be too highly recommended.

By the agricultural reports before alluded to, it appears that in the lots reserved for wood (called coppices) it is considered as most profitable to cut off the growth every 40 years. It will be perceived that for this country a longer period is inclined to.

As to the pine, that called the pitch pine, (*Pinus Rigida*), is the prevailing growth in this State. The general opinion is that it may be cut to advantage once in about 40 years.

Though trees may shoot up in height by standing longer, yet the period of most rapid vegetation is mostly over, and by this means

much of the under growth is necessarily destroyed.

It may be here remarked, that those trees which took their start in the earlier stages of vegetation on our soil, and have grown separate, have put at a distance all competition. Having the advantage of extent of ground, air, light, &c. besides being more valuable as timber, they have attained greater age and size than has been since known.

One observation will tend to the vindication of our country from that censure, which has been bestowed upon us by some superficial travellers. We have been condemned as evincing a want of taste in cutting off our forests without leaving what it would take a half century to produce, a shade near where it is proposed to erect buildings. The fact is, that trees of original growth have their roots mostly in the upper stratum of earth and near the surface. A tree acts upon its roots, and is acted upon by the wind, sustaining in common with the whole forest the force of this element, and it becomes accommodated or naturalized to the pressure. But when left alone or unsustained, it is borne down by the first gale, often to the injury of property, and even of life. It is true wisdom therefore, that induces the settler to cut or girdle the whole growth, that a danger so serious may be avoided.

Considering the oak as the monarch of the wood, we begin where this tree predominates. From a careful examination of several lots of considerable extent, which have been cut clean, and where there could be little doubt that the growth was, as it were, primeval; not more than seventy rings could be discovered. As the outer rings were not very distinct, it may be fairly inferred, that many years might have passed by without this indication of increase. The result seems sufficient, more especially if it shall be confirmed by coincident facts, to establish the preceding hypothesis; that it is generally most beneficial to cut off our wood lots at some period between forty and fifty years; varying the rule somewhat as circumstances may dictate.

Where lots are left for a much longer period, or where the old trees are gradually selected as wanted by the proprietor, the growth becomes more and more feeble.

The English writers generally lay down a different result from what appears to be the fact in this country as to the growth of wood.

First they assert, that after a period of about fifty years the forest trees will not shoot anew after being cut over. This is so far from being the case here, that it is believed that scarce an instance has occurred, where lots are fenced and cattle are kept out, but that a new growth has rewarded the owner of the soil. In several lots of old growth upon Blue Hill in Milton, it was predicted that there would not be a new growth. The wood was cut off in about 1800, and there is now a fine vigorous succession of the same sort of trees.

Old lots, when the wood is taken therefrom, are too often left exposed as pastures or in commons; the roots are surcharged with sap; the

FOR THE NEW ENGLAND FARMER.

MR. EDITOR,

shoots, when they rise up, are of rapid growth, tender, and nutritive; they are cropped by cattle and sheep, and the erroneous conclusion above stated is too hastily drawn, in this country at least. The next point, upon which we must dissent, is this. That "the trimming of wood lots is beneficial." True it is, that some of our farmers think that the stumps of their trees may be deprived of a portion of their numerous suckers for a few years. They are used to serve as hoop poles. Perhaps from the necessity of the case, and the situation of the country, this may be justified. But experience here seems fully to establish it, that wood lots should not be trimmed in the manner recommended by the English writers, for the purpose of letting in the air and light. In a variety of instances where this has been done, the consequence has been that the leaves have been blown away, which would have made the land lie light and nourish the roots. A thick grass sward has been formed, and the lots have been stunted in growth, and most essentially injured.

There is no doubt that in the family of the oaks there is a great difference in growth and duration. The red oak (*Quercus Rubra*); the grey oak (*Quercus Ambigua*); the swamp white oak (*Quercus Prinus Discolor*); in forests attain their growth sooner than the white oak (*Quercus Alba*.) The latter tree spreads its limbs parallel nearly with the earth; by engrossing a greater extent of soil it has the benefit of better nutrition. As it seldom predominates in the forest in close growth, it does not perhaps mature much under from 60 to 80 years, and when in single and favorable situations, it requires a much longer period. The Chesnut of the U. States (*Castanea Vesca*) is a long lived tree, but less so than the white oak; it grows to a large size and is valuable for timber. In Scotland, they conjecture some of their Chesnut trees to be nearly three hundred years old. As has been before observed, the white oak and the elm, in common with all other trees when well situated in cultivated grounds, and near roads and houses, attain great and protracted age, and must be considered as forming (if not exceptions) classes of cases by themselves, not interfering with that system under which we place our forests and wood lots.

I feel that I owe an apology to you sir, as well as your readers, for the length of this communication. My object has been to excite an attention, which is becoming more and more important as to our wood lots, and I feel desirous of bringing those forward who are better informed. As it may furnish, however, some amusement to the curious, and lead to the general benefit and ornament of the country to adorn our highways and pleasure grounds with trees in rows and otherwise, I shall subjoin a variety* of instances of the size, age, &c. of several in this neighborhood and elsewhere, which will serve to show what an astonishing increase time insensibly effects in this wonderful product of the earth.

I am, Sir, respectfully yours, &c.

JOHN WELLES.

* This Appendix was necessarily omitted, but will appear soon.

To remove the stain of Cherry or Claret Wine.—Apply a solution of sal ammoniac in lemon or lime juice to the spot, and in a short time it will disappear.

The time of planting reminds me of a question not yet settled to the general satisfaction of farmers. I have reference to seed potatoes, whether they should be planted whole or cut into pieces. Experiment affords the only criterion whereby we may form conclusions in cases like this, and it would be well if more were made public that we might be the better enabled to judge. I will therefore state one which will perhaps throw at least a single ray of light on the subject, among the many that illuminate your paper on the most important occupation of man.

In planting my potatoes the last season, I had the seed cut into two parts, without regard to the seed end, and planted three pieces in a hill; but as the hills and rows were very near together, I found when I had planted about two thirds of the field, that the seed thus prepared was all expended, and not then having time to cut more, I planted the remainder of the ground with whole potatoes, one in each hill, and of the larger size. The season, in this quarter, was not fruitful in potatoes, the usual produce being short of a medium crop. A rust almost universally struck them throughout the country some time prior to their maturity. Those of mine above mentioned, suffered with others, but a difference in the appearance of the vines, between those from the whole seed and those from the cuts, early attracted my notice; the former being apparently much less affected by the rust than the latter. All the time of harvesting, the vines of the cut seed were entirely dry, while those of the whole seed retained some considerable juice and greenness of appearance.

In digging these potatoes, we found that part of the field planted with whole seed to yield much more abundantly and much larger potatoes than the other part. The soil and the cultivation were alike in all respects, no other manure having been applied than leached ashes spread and ploughed in, and plaister dropped on the seed.

This experiment affords an argument against the very prevalent opinion in favor of cutting seed potatoes; and it has, in my estimation, the more force from its accordance with the general order of nature, on which all true theories must be founded.

My object in making this short communication is to elicit others on the question of more importance, and from sources more worthy of notice. The potatoe, although a humble root, is one of the most important productions in our whole system of agriculture.

Buckfield, Maine, May 10, 1823.

From the Portland Gazette.

Recipe for making good yellow Butter.

A gentleman from Scotland has lately called at this office and requested us to promulgate the following recipe for the benefit of those farmers who supply our market with butter.—He was led to make the suggestion in consequence of having noticed that our butter made after the cattle are put to hay, is almost universally white. He says that in his country the dairy women avoid this by grating some orange carrots, the juice of which, after being strained, is mixed with the cream previous to churning.

Butter thus manufactured acquires not only beautiful yellow color, but a flavor which adds greatly to its value. The quantity of carrot juice necessary to be used for this purpose may easily be ascertained: indeed the judgment of the manufacturer cannot fail to suggest very nearly the quantity necessary to give it a proper color.

Art of dressing Flax so as to resemble Silk, practised in Germany.

Take one part of lime, and between two and three parts of wood ashes; pour over them due proportion of water to make a strong and sharp lie after they have stood together a night, which must be poured off when quite clear. Tie handsfull of flax at both ends, to prevent its entangling, but let the middle of each be spread as open as possible, in a kettle on the bottom of which has first been placed little straw with a cloth over it. Then put another cloth over the flax, and so continue covering each layer of flax with a cloth, till the kettle be nearly full. Pour over the whole the clear lie, and after boiling it for some hours take it out, and throw it in cold water. The boiling, &c. may be repeated, if judged requisite. The flax must be each time dried, hauled, beaten, and rubbed fine; and, at length first dressed through a large comb, and then through a very fine one. By this process the flax acquires a beautifully bright and soft thread. The tow, which is beaten off, when papered up and combed like cotton, is not only used for many of the same purposes, but makes an excellent lint for wounds.

Mode of Whitening Straw.

In 1806, a new method of whitening straw was discovered in Germany. This consists in steeping it in muriatic acid saturated with potash. The straw, thus prepared, never turns yellow, is of a shining white, and acquires great flexibility.

Preserved Strawberries.

To one pound of ripe strawberries put one pound of powdered loaf sugar, laying alternately on a deep dish a layer of each. Let them remain thus for twenty-four hours, when beat them in a sirup till they are all of a color. In order to determine when they are done enough cut one of them open. Then, taking them out, boil the sirup to the consistence of a jelly, let it remain till cool, then put in your strawberries, and let them boil up once, take them out and when cool, put them into a pot for use.

Hop Beer.—For a half barrel of beer take half a pound of hops and half a gallon of molasses; the latter must be poured by itself in the cask. Boil the hops, adding to them a teacupfull of powdered ginger, in about a pailful and a half of water, that is, a quantity sufficient to extract the virtue of the hops. When sufficiently brewed, put it up warm into the cask shaking it well in order to mix it with the molasses. Then fill it up with water quite to the bung, which must be left open to allow it to work. You must be careful to keep it constantly filled up with water whenever it works over. When sufficiently wrought to be bottled put about a spoonfull of molasses into each bottle.

From the American Farmer.

IMPROVEMENT IN THE CONSTRUCTION OF BEE HIVES.

Newburyport, March 3, 1823.

John S. Skinner, Esq.

DEAR SIR—I observed in your paper, No. 48, p. 1th,* an extract from the National Gazette, commending the method practised in Germany, of gathering honey, as being easier than that of India, and more merciful than that of this country, which induces me to think that Mr. Blake's patent Bee Hive had never been examined by the writer—as honey can be taken from a hive of that kind, and if too much be

taken the bees can be furnished without using in one case herbs, gloves, cap and mask; and in the other lifting the hive to feed them from a saucer—and besides it is well known, that most of the white comb is put in the top, therefore in taking out a box, as described by the plate, and replacing it by another, the bread &c. of the bees is not disturbed. I enclose you a drawing of the hives, a copy of the schedule referred to in his letters patent, and making part of the same, containing Mr. Blake's description of his improvement in the construction of the bee hive.

value; and in which all the French Agriculturists, who know how to appreciate your useful lessons, would participate with me.

"I have already met with some words, of which I do not well know the meaning; for instance, I do not know what is the insect called *wire worm*. I have not been able to ascertain it, nor even to approximate what it can be, as it does not extend its ravages with us, to grain sown on clover, when ploughed up, as is the case in England. I do not know either, what is the plant called *rib grass*, of which I have not yet seen the botanical name given. Perhaps, indeed, it may have escaped me while reading, and I may find it out in the continuation of the translation.

"This work, to which, notwithstanding its importance, I am only able to devote a short time every day, will still require three or four months; but I hope it will be published about that time.

"I beg that you will accept the expression of the respectful sentiments, with which I have the honor to be, Sir, your very humble and obedient servant,

(Signed) MATTHIEU DE DOMEILLE *ainc.*"

From the Trenton Emporium.

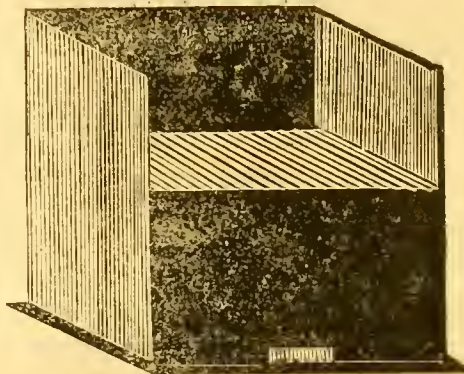
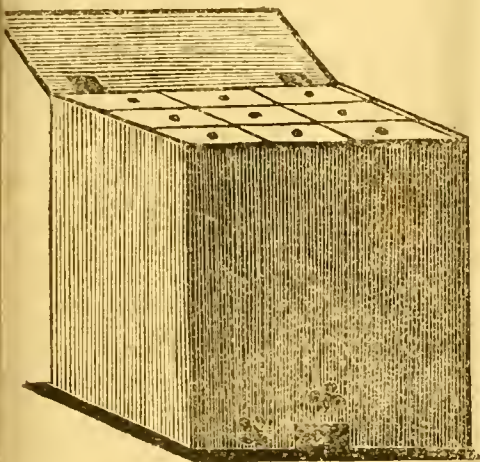
HOW TO PRODUCE THE BEST OF FRUIT.

Take a scion from a tree, the growth of the preceding year, of the choicest fruit to be found—cut this scion into pieces of two, three or four inches in length, dip the ends cut in warm rosin so as to prevent the sap issuing out—plant the pieces in soil suitable for an orchard. A number of shoots will spring up; from these select the most thrifty for growth, lop down the remaining shoots and cover them faithfully with earth, and in a short time they will become roots to nourish and hasten the growth of the tree. An orchard may be produced in this manner at least two years sooner than from the seed.

DANDELIONS.

A medical writer in the National Intelligencer remarks:—"Dandelions have always been considered *peculiarly useful* in visceral obstructions, particularly those of the liver, when eaten either as greens, salad, or taken in ptisans.—They seem calculated, from their stimulant deobstruent powers, to promote bilious discharges, and, from long experience, have been found highly efficacious in all biliary *affections* of the liver. They are also good to keep the body open, and are diuretic and attenuant. In the dropsy, the dandelion has been known for ages to be of great utility. The ancients, says Willich, were better acquainted with the properties of this excellent vegetable, than those modern practitioners who appear to be more anxious to introduce exotics, imported from distant countries, than to ascertain the qualities of those numerous medical plants which grow in our own climate. I advise all who are troubled with bile, flatulencies, fullness of blood, and who are fearful of dropsy, vertigo, &c. to make free use of this precious gift of nature, the Dandelion.

Information to the Ladies.—Plaid stuffs will neither shrink nor lose their lustre, by the following simple method of cleaning them.—Wash them with soap and cold water, and starch and iron them before they are dry.—*Ch. Courier.*



"This improvement consists in the construction of a hive, so that any quantity of honey, from a very small portion, to nearly one third part of the whole, may be extracted at any time from the hive, without any serious injury to the bees, or without the destruction of any of the combs of those valuable little animals, and so that whenever there is a deficiency of honey for the support of the bees, or no more than is necessary for the purpose, it may be supplied or taken away at pleasure. Let a square box, of the size of the common hive, or any other convenient size, be made of pine, or any other suitable wood. Let a number of bars be placed horizontally, at about one third part of the distance, from the top of the hive, so that the space between each bar shall be about two-fifths of an inch. Let any number of separate boxes, say

nine or more, or less, be so made, that they shall fill up the whole space between the bars mentioned, with any convenient thing inserted in the tops of the boxes, for the purpose of extending them at pleasure, and let there be a cover to be placed over the whole, in such a manner as may be thought most convenient."

(Signed) EDWARD BLAKE.

I would also observe, that I have several of those hives preparing, and am confident they will answer a valuable purpose. The cost is very trifling, and those who purchase the rights of vending to the several states and counties, charge only about two dollars, to each farm or individual for the privilege. Mr. Blake's residence is in the town of Hartford, County of Oxford, state of Maine, unless he has removed within a few months.

Respectfully, your obedient,
BENJAMIN POOR.

* For the same article, see N. E. Farmer, p. 322.

TRIBUTE TO MERIT.

Translation of a letter from Monsieur de Dombeille, President of the Central Agricultural Society of Nancy, to the Right Hon. Sir John Sinclair, Bart. dated Nancy, 7th Nov. 1821.

"SIR—I have the honor to inform you, that on the 3d of this month the Central Society of Agriculture of Nancy, has inscribed your name on the list of its Foreign Correspondents. The Diploma shall be transmitted to you without delay. I hope that you will not refuse the lustre which your name would procure it, to a Society now in its infancy.

"I beg leave here to express all the satisfaction which I experience, in a choice so honorable to the Society; and to add, how much I am personally flattered, with the sort of brotherhood, which this gives me, with the person,

whom I consider to be the first agriculturist in Europe.

"I have been occupied, Sir, for some time, in translating your excellent "Code of Agriculture." If any thing can contribute to raise Agriculture in France, to the rank of a science, which we could not till now pretend to do, it will certainly be the publication of this work in French, being the most systematic, the most concise, and, in my opinion, the most perfect, which has hitherto been written in any language.

"In the course of this work, which is already well advanced, I have perceived more than once, that I should require information respecting some particulars. If you would have the extreme kindness to permit me to apply to you to obtain such information, it would be a motive for gratitude which I would well know how to

From the last Pamphlet published by the Essex Agricultural Society.

JOHN LEES' STATEMENT.

Newbury, Nov. 19, 1822.

To the Committee on Indian Corn and other crops.

GENTLEMEN—In the summer of 1821 my fields, generally known by the name of "Boynton Field," which had been for eight or ten years adapted to mowing, not exhibiting so good an appearance as usual in grass, I thought of making up the deficiency by raising a crop of potatoes; consequently, in the latter part of June, I mowed about three quarters of an acre, the produce of which, as near as we could judge by appearances, was a ton of hay of an excellent quality. I then broke up the land and planted the common white potatoes, putting a small shovel full of compost manure into each of the hills. The manner of ploughing, planting, hoeing, &c. was much the same as practised by the farmers in this vicinity; and in autumn the crop of potatoes was rising two hundred bushels.—This success induced me to try what I could do with Indian corn; and late in autumn I carted on thirteen cart loads of compost manure, which lay in small heaps until the following spring, when more of the field was broken up, and this manure spread over the land and ploughed in; then ploughed again and harrowed. The hills were made three and a half feet one way and three feet the other distant from each other, then a shovel full of manure, partly compost and part from the hog yard, was placed in each hill, and five kernels of the common eight rowed corn dropped in each hill. At the time of the first hoeing it was discovered that a red headed worm, measuring from a half inch to one and a half inches in length, was committing sad depredations; it was the opinion of many respectable men, that nearly one half was destroyed. This was replanted, but still the worms continued the destruction; and the season being far advanced, the defective hills were planted again with pumpkins, squashes, turnips, &c.—The piece was hoed three different times, and at the second time the plough was used to facilitate the hoeing; and in autumn I harvested from one acre, measured and stacked out by Mr. John Northener, one hundred and eight bushels and twenty quarts of corn, weighing fifty-nine pounds to the bushel; seventeen hundred and fifty pounds of pumpkins, one hundred and fifty pounds of squashes, and eighteen bushels of turnips. As to the precise times of ploughing, hoeing, planting, &c. I cannot ascertain, in consequence of my principal workman being deprived of his labor by indisposition, and the multiplicity of my cares made it impossible for me to pay that attention which was necessary; suffice it to say that my mode of management was much the same as that of farmers in general. I am, gentlemen, with much respect, your obedient servant,

JOHN LEES.

HENRY LITTLE'S STATEMENT.

Newbury, Nov. 5, 1822.

To the Committee on Green Crops.

GENTLEMEN—The following is a statement of the cultivation and production of one acre of Indian Corn, raised by the subscriber in Newbury. The soil is a dark clay loam, and in 1821 was planted with beets and carrots, and manured with six cords of manure made by a

brewer in Newburyport, and produced about 400 bushels to the acre. In May, 1822, the land was twice ploughed and planted in hills, three and a half feet apart, with five cords of compost manure put in the holes; four grains of corn were put in each hill on the manure and covered with a hoe; the corn is the eight rowed kind, and weighed, when harvested, 58 pounds to the bushel. The green, or unripe corn, was not measured; it was hoed three times, and late in the season; the few weeds that came up were destroyed. The stalks were topped the middle of September; it was harvested in October, and drawn to the granary and measured, and there were two hundred and thirty-two and a half bushels of ears, and a fraction over. By shelling four bushels of ears, the estimate was, that there was one hundred and sixteen bushels and nine quarts of shelled sound corn.

The expense of cultivating the above acre of corn, calculating labor at four shillings.

Rent of land	\$9 00
Manure	15 00
May 3. Ploughing	1 50
9. Cross-ploughing	1 50
10. Planting and putting the manure in the holes	2 75
June 7. Hoeing	1 00
12. Transplanting or filling up the vacant hills, calculated to have 3 stalks in each hill	67
14. Hoeing the second time	1 00
25. Hoeing the third time	67
July 15. Destroying weeds	33
Oct. 7, 8. Harvesting and measuring	5 33
	<hr/> \$38 75

Yours, respectfully,

HENRY LITTLE.

N.B. The time of topping the stalks and getting in the bottom or but stalks, not in the estimate. The value of the stover [the stalks and husks] I think equal to one and a half tons of hay.

JOHN DWINELL'S STATEMENT—ON BEETS.

The following statement of a crop of Beets, with the manner of tilling the land, is submitted with the claim for the society's premium, viz.

The land in 1821 was in good heart and produced a crop of potatoes, and is part of the lot which enabled the present claimant to obtain the second premium last year. A reference to the statement then made, will give the committee a full knowledge of it.

The present year the land was ploughed May 1st and 2d, eight inches deep, with one yoke of oxen, which occupied one day and a half; after which it was harrowed, and fitted for receiving the seed, which occupied one day. The remainder of the time was four days sowing, two days weeding, two days hoeing, and eleven and a half days digging, topping, weighing and housing the crop; in all twenty two days labor.

The quantity of manure was one and a half cords, and the quantity of seed two and a half pounds.

The crop, which was weighed, amounted to 29 tons, 0 hundreds, 1 quarter and 25 lbs.—or 580 hundred, 1 quarter and 25 lbs.

All which is respectfully communicated.

JOHN DWINELL.

Salem, November 11, 1822.

HENRY LITTLE'S STATEMENT—ON TURNIPS

Newbury, Nov. 5, 1822.

To the Committee on Green Crops.

GENTLEMEN—The following is a statement of the cultivation and production of a lot of English Turnips, raised by the subscriber, in Newbury. The soil is a clay loam, and had been down to grass six or seven years; in 1821 cut about one ton of hay to the acre; the last of June, 1822, it was mowed, and cut about half a ton of hay; the ground was then ploughed and ten cords of compost manure (the principal part of the compost was marsh sod,) spread on and harrowed in, then it was ploughed in shallow ridges, three feet apart, and the seed sowed, with a machine, on the ridges, then a roller was made to pass over the same, and the sowing was finished. It took one pound of seed to the acre; they were thinned to the distance of one foot apart in the row; they were twice ploughed and hoed, and harvested the last of October, and the crop was six hundred and eighty seven and a half bushels.

The expense of cultivating one acre of turnips on the above mode, calculating labor at four shillings per day.

June 28, 29. Ploughing, harrowing, and sowing,	\$6 6
Sowed July 1. Seed and manure,	20 5
Thinning, hoeing, &c.	5 3
Harvesting,	3 3
	<hr/> \$35 8

The quality of the crop. They were large but in consequence of the drought they are fit only for stock.

Yours respectfully,

HENRY LITTLE.

SILAS AND JOSEPH LITTLE'S STATEMENT—ON TURNIPS.

Newbury, Nov. 14, 1822.

To John W. Proctor, Esq. Secretary of the Essex Agricultural Society.

SIR—We have this year cultivated an acre of common turnips on our farm in Newbury, and as we hope to obtain the Society's premium we are bound to make a particular statement of the mode of cultivation.

A small part of this acre was sown with turnips the last year; the other part has been grass ground five or six years. This year that part which was used for turnips we sowed with flax, after putting on it about five loads of manure, and pulled the flax as soon as the blowing had fallen off; then ploughed it, together with the grass ground, so as to make an acre and after harrowing in part, carried on nine teen cartloads of compost manure, mostly sandy loam, to mix with our clay loam. The one part we spread on half the ground, and then ridged it with a small double-mouldboard plough about two feet and nine inches apart. The other part was furrowed with the plough, and the manure put in the furrows at a like distance (the produce however was about equal,) and ridged as above, which covered all the manure. One pound and a half of seed was sown on the acre, one row on a ridge, and after the turnips were out of the way of the flies they were thinned at the distance of 10 or 12 inches, then hoed twice, and ploughed once.

The time of harvesting began the 28th of October, and ended the first of November; and

here were six hundred and fifteen bushels, rimmed fit for the market, besides five or six bushels defective or rotten, and unfit. The weight of a bushel 59 lbs. Expense of, cultivation:

Ploughing and harrowing	\$3 00
Manure	13 00
Seed	50
Ridging and sowing	2 00
Thinning	2 75
Hoeing	2 50
Harvesting	5 00
	<hr/>
	\$28 75

Sir, we are yours, with great respect,
 SILAS LITTLE,
 JOSEPH LITTLE.

NEW ENGLAND FARMER.

SATURDAY, MAY 17, 1823.

The Farmer's and Gardener's Remembrancer.

MAY.

GIVE NO QUARTER TO NOXIOUS INSECTS.—Our climate and soil have, of late years, developed extraordinary propensities to increase and multiply the petty plunderers which tenant every clod, pervade every particle of earth, float in every breeze, make their domiciles in every useful vegetable, and tease, torment and destroy many of our most valuable domestic animals.—We have already (p. 293) recommended some applications for the purpose of checking the ravages of insects. We would now mention another substance, which is valuable as well for manure, as for its property as a preservative against insects. *Soap suds* is highly recommended, by good authority, as very efficacious in both those capacities. Yet, we apprehend that it is commonly thrown away by people who call themselves excellent economists. Many a *tidy* body makes use of soap suds in the manufacture of puddles, generally located near the steps of the front door, which appear very agreeable in consequence of the contrast, thus exhibited, between the nastiness without, and the neatness within doors. When not conveyed by proper pipes, troughs or channels, to some general repository of liquid manure, (according to our directions p. 281) they should be preserved either in pits sunk in the garden and lined with clay, or in tubs, barrels, hogsheds, &c. Or if more convenient, make a large trough from the butt of a pine, or some other suitable tree, and direct your washer woman to save her suds in that recipient. Thus, with a little pains, you get great gains; for a little care, is a great affair, as "Poor Richard" might have said. And when proper times and opportunities occur apply this kind of liquid manure to your fruit-trees, your garden vegetables, &c. and we will pay all the damage which insects do after such application; that is to say, provided, nevertheless, that our informants have not deceived us relative to the good effects of said application; of which, however, we have no apprehension.

The Rev. Mr. Falconer, one of the correspondents of the Bath Agricultural Society, in treating of soap suds as a manure, and an antidote to insects, has the following observations: "This mixture of an oil and an alkali has been more generally known than adopted as a remedy against the insects which infest wall fruit

trees. It will dislodge and destroy the insects which have already formed their nests and bred among the leaves. When used in the early part of the year, it seems to prevent the insects from settling upon them; but whether by rendering the surface of the leaf disagreeable to the animals, and thus repelling them, or by neutralizing the acid they deposit, and thus preventing the leaf from contracting into a necessary form for their reception, I cannot presume to determine. One of the modes by which this mixture indirectly contributes to the fertility of the ground may be by its destruction of the insects which prey upon the plants.

"It is also, I think, to be preferred to lime water,* or the wood ashes and lime which Mr. Forsyth recommends for the destruction of insects. It is preferable to the lime water, and the lime, because lime loses its causticity, and with that its efficacy, by exposure to air, and must consequently be frequently applied; and to the dredging of the leaves with the fine dust of wood ashes and lime, because the same effect is produced by the mixture without the same labor, and is obtained without expense."

The same writer directs to make use of a common garden pump for sprinkling trees with soap suds, and says if the water of a washing cannot be had, a quantity of potash, dissolved in water, may be substituted. He declares that "the washing of the trees twice a week for three or four weeks in the spring will be sufficient to secure them from the injuries of these insects." A long paper on the use of soap suds as a manure is concluded as follows: "On the whole then, this must be considered as a valuable manure, as it can be obtained easily, at small expense, and in large quantities; and when its nature is well understood, will probably be no less esteemed by the farmer than horse dung. To the gardener, as well as to the farmer, it is useful, mixed with mould, as a fertilizing compost; or when fluid may be applied to his fruit trees, as a wash fatal to the noxious brood of predatory insects."

The writer of the article above quoted mentions no particular kinds of insects which may be destroyed by this mixture, but says "it will dislodge and destroy the insects which have already formed their nests and bred among the leaves." Caterpillars and canker worms are said to be very tenacious of life, and probably might not be immediately destroyed by the application here recommended. But pure water alone, if thrown with some force against their habitations, with a forcing pump, would disconcert if not destroy those evil doers.

If soap suds alone are competent to the destruction of these insects, of course other more troublesome and expensive applications may be omitted. Besides, the mixture recommended would be worth applying, were it merely on account of its properties as a manure. It might be well, in order to make assurance doubly sure, to mix with your suds decoctions of elder and tobacco. We are of opinion that a little tar or turpentine thrown in with the above ingredients would make the compound more efficacious.

Mr. Yates, of Albany, recommends the following prescription for "doctoring off" caterpillars. "Take a handful of worm wood, one of

* Some gardeners recommend the use of lime water, but it is not commonly employed, being found hurtful to the foliage.—*Agricultural Report of Scotland.*

ruce, and two of Virginia tobacco; (a sufficient quantity of tobacco alone will do, but not so well,) boil these together in about two pails full of rain water for nearly half an hour, strain it through a cloth, and with this liquor sprinkle the trees. He performs this with a barrow engine; but the operation should be performed when the caterpillars or worms have left their nocturnal nest or web, and are dispersed on the trees. Repeat the operation two or three times, and they will drop down and expire."*

When caterpillars or worms are in their nests (which is generally the case in cool, rainy or cloudy weather, or early in the morning after a cool night,) we are told that spirits of turpentine, or common fish oil, applied by a sponge attached to the end of a pole, will kill every caterpillar within the sphere of its influence. But as we said before, if soap suds will answer according to the recommendations, we do not perceive the necessity for ransacking the whole store-house of nature for other and more expensive remedies. We should think it advisable to strain or decant any liquid substance which shall be applied to the leaves of trees or other vegetables, for a glutinous or muddy substance might close the pores or impede the perspiration of the leaves, which are the lungs of plants.

WORMS WHICH ATTACK THE ROOTS AND TRUNKS OF FRUIT TREES AND OTHER TREES.—John Prince Esq. of Roxbury, published a communication relative to these insects in the Mass. Agricultural Repository, vol. iv. From this it appears that Mr. Prince had lost many apple trees by means of "a small, white, ringed worm, about three quarters of an inch long, with a dark colored head, (I believe the same which attacks the peach tree,) attacking them at and just below the surface of the ground. The remedy is the same pointed out in an article, published p. 317, 3d col. of our paper. The following is likewise recommended in the Mass. Agricultural Repository: "Take equal parts of quick lime, cow dung and clay, which by the addition of soap suds and urine, should be reduced to the consistence of common paste. To make it more adhesive add a little hair. Let the whole stem, from the roots to the branches, be enveloped with a coating of this composition, and occasionally, repeated, and it will scarcely be possible for the fly or worm or insects to injure the trunk of the tree; and it will at the same time prove conducive to its health and vigor. It might even be recommended to make the application to all young trees, at the time of transplanting, especially in places where the worm is known to prevail."

LICE INFESTING YOUNG ORCHARDS.—The following is a communication on this subject, which, we believe, was first published in the Mass. Agricultural Repository, vol. iii, p. 144. Tho' it has been frequently republished it may be new to some, and serve as a *remembrancer* to others of our readers.

"This insect, called *lice*, is in form like half a kernel of rye, (but not more than one twentieth part so large) with the flat side sticking to the smooth part of the tree. They resemble blisters; and are near the color of the bark of the tree. These blisters contain from ten to thirty nits or eggs each, in form like a snake's egg; which, in a common season, begin to

* Thacker's Orchardist, p. 97.

hatch about the 25th of May, and finish about the 10th of June. These nits produce white animalculæ, resembling a louse, so small they are hardly perceptible by the naked eye, which immediately after they are hatched, open the passage at the end of the blister, and crawl out on the bark of the tree; and there remain with but little motion, about ten days; when they stick themselves fast to the bark of the tree and die. From this little carcass arises a small speck of *blue mould*, which is most plain to be seen between the 10th and 20th of June, and continues about fifteen days, and then gradually wears off, until the old carcass appears, which, by this time is formed into a new blister, and contains the spawns or nits before mentioned.

"These blisters prevent the circulation of sap, and prove as fatal to the tree as the canker worm.

"In order to remedy the difficulty, I have made many experiments within a few years; but long to no good effect, not knowing then the particular season when these animalculæ could be most easily destroyed. This, however, I have lately found to be between the time they hatch, and that when the mould leaves them.* The application that I have found most effectual is, washing the trees with lye or brine. Lime, also, mixed with lye, to the consistence of white wash, may be useful. And although the small branches cannot be cleansed in this manner without much difficulty, still, if the body of the tree, and the branches near the body are kept clean until there comes a rough bark, I think the lice will not kill the tree,

"Some people have recommended the application of *train oil* to the tree, which, indeed, is a powerful antidote against lice, but being of a glutinous quality, is very detrimental to the tree. *Inoculation* has been proposed; which, I think, will have no effect at all on the lice; for I perceive they hatch in May, on branches that were pruned off the tree in March, and the sap entirely extinguished.

"These lice are natural in the *uncultivated* forest, on what is called moose-wood, and other bushes.

"Much care should be taken on their first appearing in an orchard or nursery; as the cutting down and destroying a few young trees is of no importance, compared with the difficulty of having an orchard overrun with them.

"P. S. The brine or pickle with which the tree is to be washed, should not be such as has had meat salted in it; but let one quart of common salt be dissolved in two gallons of clean water."

INDIAN CORN.—It is time to begin to think about planting this valuable grain. It is not best, however, to commit your seed to the ground till it has been pretty well warmed and dried by the advance of spring, which, this year, is unusually backward. The old Indian rule with regard to the time of planting, is to plant when the leaves of the white oak tree are about the size of a mouse's ear. This, we believe, generally takes place, in New England, between the 20th of May and the first of June.

"If twenty loads of good manure can be afforded to an acre, it should be spread on the

land and ploughed in; if no more than half that quantity, it will be best to put in holes. In the former case the corn usually comes up better, suffers less by drought and worms, and the land is left in better order after the crop. In the latter case the plants are more assisted in their growth in proportion to the quantity of manure. If the manure be new dung, burying it under the furrows is by far the better method. None but old dung should be put in the holes."*—Probably the best way is to spread a quantity of green or fresh manure over the ground as evenly as possible, and put your well rotted or compost manure into the hills. In this way the rotted manure will supply nourishment to the plants the first part of the season, and the fresh manure, which was spread over the whole surface, will assist the plants most materially about the time the ears are filling. Col. Valentine, in raising his premium crop (see page 178,) spread his green barn yard manure over the whole land, and likewise put another quantity "of barn, hog, and slaughter yard manure" in the rows. In this way he raised 116 bushels and 23 quarts of sound corn to the acre.

If your land is rough or stony, and your object is to make the most of your labor, your better way will be to plant your corn in hills; but if the soil be rich and easy to till, and you wish to make the most of your land, you will of course choose the drill method; or, perhaps, if your object is to surpass every body, and get a premium into the bargain, you may as well take a hint from the following paragraph, extracted from an essay of Mr. Black, published in the *American Farmer*, vol. ii, p. 27.

"I risque it as an opinion, confessedly without any actual experiment to support it, that as a matter of curiosity it might be possible to make some fraction of an acre of ground so deep and perfect in its soil as to produce, and maintain to maturity, one stock of Indian corn upon every twenty-four inches of square surface. If so, and we allow one good ear to each stalk, and half a pint of grain to each ear, the product would be about at the rate of one hundred and sixty-eight bushels to the acre."

It appears that this conjecture has been more than realized. Messrs. J. & M. Pratt, of Easton, Madison county, N. Y. raised the last season, on one acre, one hundred and seventy-two bushels and one fourth; and on three acres, four hundred and ninety-four bushels and one fourth.† We have seen no statement of the particular mode of cultivation adopted by the Messrs. Pratt's; but can have no doubt that in order to obtain the greatest possible crop of Indian corn, (as well as any other vegetable) it will be necessary that every plant should stand by itself—that all the plants should be equi-distant from each other, and perhaps two feet each way would, in that mode of planting, be the distance required for the purpose stated. In that manner of planting, however, the cultivator must forego the advantage of using the plough to lessen the labor of hoeing, and probably for field cultivation the common modes of planting in drills, or in hills, will be most expedient.

* Deane's New England Farmer.

† See page 117 of this paper.

Coal discovered.—A bed of coal of superior quality has been discovered on the farm of Mr. Teal, situated at Kinderhook, on the Hudson river.

ON MIXING LIME WITH MANURE.

Our paper No. 39, page 306, contains a communication from a correspondent, dated Livermore, Maine, in which is the following query: "Would it not confer a favor on your patrons, if some one who is acquainted with the use and operation of lime, would communicate through the medium of your paper, the manner and the quantity [of lime] which should be mixed with a load of green manure, and also how long after the mixture before the straw and stubble will be decomposed and fit for use?"

As none of our correspondents have obliged us with an answer to this question we will state what we learn from books relating to this subject, premising that we have no knowledge of it derived from personal experience.

In a paper first published in the *Memoirs of the Philadelphia Agricultural Society*, entitled "Notices for a Young Farmer," which is ascribed to the Hon. Judge Peters, of Pennsylvania, (than whom no one stands higher on the roll of American agriculturists) we have the following directions and assertions:

"Mix earth with your fermenting litter or muck rather than lime, until the fermentation be sufficiently advanced." "Plaster, in compost in which vegetable matter is mixed, is more beneficial than lime." Again he says, "Mix no hot lime with your muck, dung, or compost heap before fermentation has ceased, or sufficiently advanced, as it injures moderate fermentation, and often consumes the muck. Instances of even conflagration of strawy muck, by hot lime, to a great extent, can be given. If lime be used, that which is slacked is safest and best, when mixed with either dung or compost."

The same opinions are expressed by other authors. The writer of the article "Compost," in Rees' Cyclopaedia, directs, in making composts, to interpose a layer of earth between every layer of dung and of lime. We should think that in all cases where the manure is combustible, quick lime would injure if not destroy it, and we do not see why a cultivator may not as well burn a straw or muck heap with hot coals as with hot lime.

We will here subjoin one other quotation from the work of Judge Peters, above quoted, which, though it does not directly apply to the question stated by our correspondent, may be of use.

"Nothing requires more attention to the nature and qualities of your soil than the use of lime. If it be too lavishly applied, or too frequently repeated without intervals of grass to furnish vegetable matter; or manures, either animal or vegetable, ploughed in for the lime (according to the country phraseology) to feed on, it renders your ground *lime sick*, and reduces it to sterility. Our caustic lime must be applied in quantities very far less than the *mild lime* of Europe, if we would avoid turning a highly beneficial auxiliary into a destructive scourge. No certain rules, as to quantity per acre, can be fixed, without a perfect knowledge of the soil to which it is to be applied. In all cases, moderate quantities, at first, are the safest. Our common lime is here meant; as much depends on the kind of lime applied. It must therefore be the study of those who apply lime, to discover its composition, or what is called its strength, before they can form a correct opinion of its salutary or injurious uses. It would seem, that the *mild lime* had some fertilizing qualities in itself, otherwise the lavish use of it, whereof we read, cannot be accounted for. The lime of burnt oyster shells, is *mild*; and land of any tolerable staple will bear great quantities beyond the proper allowance, to the acre of caustic lime. Many other instances might be adduced. Both large and small quantities operate

* "It appears from this account, by Mr. Perley, that these appearances can, in general, only occur between May 25, and July 5."

t once. But it is fugacious; and compared with austic lime, soon exhausted. Of the mild lime of England, seven hundred bushels have been put on an acre; and two hundred bushels are common. What the strength of their mild lime compared with oyster shell lime, or with our magnesian or caustic lime, is unknown. Forty to sixty bushels of the latter, are amply sufficient, with us, for any worn acre; and for most part of our worn land, too much, at the first dressing. What quantity of oyster shell lime is proper at first, is not yet ascertained. Repetitions of smaller quantities, at intervals, would be better than applications of too much at once."

FALL FEVERS.

A correspondent of the Franklin Gazette makes the following remarks:

"Some time since, when the fall fever raged violently in the neighborhood of a canal, then in a state of progress, numbers of the workmen engaged on it cat plentifully of garlic, and wholly escaped, while those who abstained from the use of this article were severely afflicted by the disorder. That this may have been accidental I freely admit; but garlic may, nevertheless, be a specific against autumnal fevers. If so, it is an invaluable article in the Materia Medica. Persons in the neighborhood of canals and stagnant waters generally, are advised to make trial of this article, in the course of the succeeding fall, and communicate the result."

FOREIGN.

LATEST FROM EUROPE.

The ship *Thomas Fowler* arrived at this port on the 3th inst. bringing London papers to the 5th of April, and these containing Madrid dates to the 19th March. One body of the Spanish Insurgents with their leader, had surrendered to Gen. Ballasteros, who granted them an entire pardon. Two superior officers from Lequinenza have also made proposals to the Constitutional general for a capitulation. Mina continues to organize his army, which is devoted to him. The French army was not expected to move at present. It is said they have no means of conveyance, and that they will find none after entering Spain. An article, lately Stock Exchange, London, April 5, states, that "The well informed positively assert that the invasion of Spain is deferred to the 16th." Some of the papers, however, declare that the war will soon be prosecuted with great vigor.

Constantinople.—The Janizaries are in a state of great fermentation, and the numerous Musselmén, who parade the street in arms, commit great excesses.—They broke into Christian houses, and murdered several persons, among whom were two Frenchmen and a German. It is reported that peace will probably be continued between the Russians and the Turks, and that the latter were making great preparations to repossess themselves of the Morea.

Capture of the Pirate Schooner Zaragocana.—Kingston (Jam.) papers of the 13th ult. contain an official account of the capture of that vessel, by the boats of the British, in which the marauders had 10 killed, and 15 wounded; 16 were taken by the Spaniards on shore, and 23 carried into Port Royal for trial.

Three days later.—By an arrival at New York, London dates have been received to the 8th April. There has been a report published in the London Sun that the French declaration of war had been received by the English government. This, however, turns out to be a mere stock-jobbing hoax. The French are still delaying their threatened attack on Spain, and expectation, who has so long stood on tip-toe, may as well set her feet down, and leave off gaping after bloody news, which, it is hoped, she never may have occasion to swallow. A corps of the *Army of Faith*, after having been clothed and armed by the French, have added good works to their creed, by joining their brethren, the Spanish Patriots. The *Duchess of Angouleme* has left Paris for Bordeaux, it should seem to take an active part in the crusade. Whether this noble Amazon is to display the Banners of Beauty in front or rear of the

French army, rumor does not say. Perhaps she will present some of the ensigns in the French service with appropriate colors, a speech, &c. after the manner of our American ladies. And, possibly, his Majesty of Spain has promised to requite the favor with an "embroidered petticoat" of his own manufacture. On the whole, the French councils appear to be as feeble and vacillating as their cause is unjust, and the terrible is giving place to the ridiculous in all their late movements.

DOMESTIC.

The Governor and Council have examined the returns of votes for Senators from the several Districts, and it appears that 38 are elected—22 democrats, and 16 federalists. There is one vacancy in Essex and one in Bristol.

The election of Representatives to the General Assembly took place in this city last Monday. Twenty-four federalists were elected by an average majority of about one hundred votes; and there is one vacancy. It is expected there will be a democratic majority in the House of about fifty.

Peter O. Thacher, Esq. has been appointed by the Governor and Council, Judge of the Municipal Court for this city, vice Judge Quiney resigned.

On Wednesday night last, Louis Debois, a Frenchman, of genteel appearance, about 40 or 45 years old, was apprehended in the office of Mr. Samuel Dana, while in the act of attempting to open the money vault with false keys. Mr. Dana, suspecting that attempts had before been made to open his vault, procured two constables to watch for the night in his office. About 11 o'clock the rogue came, unlocked the outer door, and was inserting his key in the lock of the vault, when he was seized by the constables and secured.—He had about him a number of keys of curious construction, suited to open a variety of locks.

Dreadful Accident.—On the 9th inst. at New York, the boiler of the Steam-boat Patent burst, and scalded six men. The accident cannot be accounted for, as the boiler had borne more steam than it appeared to have at that time, and the presumption is that there was some stoppage in the steam gauge. Three of the men were so badly scalded that it is feared they will not survive. [Five of the unfortunate men who were scalded have since died, including Mr. Dodd, of New Jersey, the Engineer.]

Agriculture encouraged in Nova Scotia.—The Legislature of Nova Scotia has granted \$4000 the present year for the encouragement of agriculture. A handsome sum for a province whose revenue and resources are small. It has also granted \$800 to a Steam Boat Company.—*N. H. Patriot.*

An Ox was lately exhibited at Baltimore, which is stated to have weighed nearly 4000 lbs.

Large Hogs.—Some of the most extraordinary swine that have ever been raised, have been exhibited at Mr. Graves' Cattle Yard in Sixth, opposite Noble St. It is supposed that one of them, when killed and dressed, will weigh 1000 lbs. Its age is only twenty-two months. Another supposed to weigh, in like manner, 700 lbs. and a pig of five months, between 200 and 300 lbs. are also presented to public curiosity.—*Phil. pap.*

Mammoth Bean.—We saw yesterday a dried *Bean Pod*, (full of large beans,) which measured thirteen inches in length and four in circumference. It is in the shape of a Turkish sabre, of a yellowish hue, and beautifully seamed on both sides. This singular vegetable grew in Florida, and was sent to a gentleman in this town, who will endeavor to propagate it.

Providence paper.

A suit has been commenced against the Corporation of Washington for the highest prize drawn in the fifth Class of the Grand National Lottery.

The libel suit, Mathews vs. Buckingham, which has been so much talked about, we understand has been dropped by the Plaintiff.

Sale of Eastern Lands.—Seventeen townships of land, situated in Maine, on the Penobscot river, being a part of the land assigned to this State in a late partition with the State of Maine, were sold at auction on Thursday, from 5 1-2 to 25 cts. per acre. 331,035 acres were sold, amounting to \$420,000. A further sale will take place some time next summer or autumn.

Fire at Natchitoches.—Intelligence received at New Orleans states that a fire broke out in the Catholic church at Natchitoches on the 30th of March, which destroyed that edifice with about 40 dwelling houses and stores in the most commercial part of the town.

A Yankee Trick.—The American schooner *Curlew*, from Bath, Maine, in order to avoid the duties imposed by the British Navigation Law, on live stock, has arrived at Barbadoes with a cargo of dead meat, consisting of quarters of beef, mutton, &c. packed in ice.

TREE BRUSHES.

FOR SALE, at the Agricultural Establishment, No. 20, Merchants' Row, opposite the east end of the Old Market, a few of those highly and much approved TREE BRUSHES, for destroying Caterpillars, and which have been so highly recommended by the Hon. Timothy Pickens, in his communication to the Essex Agricultural Society. May 10.

PRICES OF COUNTRY PRODUCE, &c.

[Revised and corrected every Friday.]

		FROM	TO
		D. C.	D. C.
ASHES, pot, 1st qual.	ton.	180 00	185 00
" pearl do.		170 00	175 00
BEANS, white,	bush	1 00	1 10
BEEF, mess, 200 cwt.	bb.	9 00	
" cargo, No 1,		8 25	8 37
" No 2,		6 50	6 75
BUTTER, inspect. 1st qual.	lb.	13	14
" 2d qual.		10	11
small kegs, family,		15	16
CHEESE, new milk		7	9
FLAX		8	9
FLAX SEED	bush	85	90
FLOUR, Baltimore, superfine,	bb.	7 75	8 00
" Genesee		7 75	8 00
" Rye, best		5 00	5 50
GRAIN, Rye	bush	72	75
" Corn		65	70
" Barley		65	70
" Oats		40	42
HOGS' LARD, 1st sort	lb.	9	
HOPS, No 1,		10	12
LINE,	cask	1 25	1 50
OIL, Linseed, American	gal.	65	00
PLASTER PARIS	ton.	3 00	3 25
PORK, Navy Mess	bb.	12 00	12 50
" Bone Middlings		14 00	14 50
" Cargo, No 1,		12 00	12 50
" Cargo, No 2,		11 00	11 50
SEEDS, Herd's Grass	bush	2 25	2 50
" Clover	lb.	8	
WOOL, Merino, full blood, washed		55	65
" do do unwashed		45	48
" do 3-4 washed		45	55
" do 1-2 do		40	45
" Native do		38	40
" Pulled, Lamb's, 1st sort		55	60
" do Spinning, 1st sort		50	55

PROVISION MARKET.

BEEF, best pieces	lb.	8	9
PORK, fresh		8	9
VEAL,		6	8
MUTTON,		5	7
POULTRY,		12	15
BUTTER, keg & tub		15	16
" lump, best		18	20
EGGS,	doz.	11	12
MEAL, Rye,	bush	78	80
" Indian,		75	
POTATOES,		40	45
CIDER, liquor,	bb.	1 50	2 25
HAY, best,	ton.	20 00	22 00

ART OF PRUNING WALL TREES.

Behold new grafted trees in spring,
Ere the first Cuckoo tries to sing;
But leave four swelling buds to grow
With wide diverging arms below;
Or fix one central trunk erect,
And on each side its boughs deflect.

In summer hours from fertile stems
Rub off the supernumerous gems;
But where unfruitful branches rise
In proud luxuriance to the skies,
Exsect the exuberant growth, or bind
A wiry ringlet round the rind;
Or seize with shreds the leafy birth,
And bind it parallel to earth.

When from their winter lodge escape
The swelling fig, or clustering grape,
Pinch off the summit-shoots that rise
Two joints above the fertile eyes;
But when with branches wide and tall
The vine shall crowd your trellis'd wall,
Or when from strong external roots,
Each rafter owns three vigorous shoots,
Watch, and as grows the ascending wood,
Lop at two joints each lateral bud.
So shall each eye a cluster bear,
To charm the next succeeding year;
And as the spiral tendrils cling,
Deck with festoons the brow of spring.

Where crowded growths less space allow,
Close lop them from the parent bough;
But when they rise too weak or few,
Prune out old wood, and train in new.
So, as each tree your wall receives,
Fair fruits shall blush amid the leaves.

Menage has this acute observation on the writings of love and religion:—"Books of devotion and those of love are alike bought. The only difference I find is, that there are more who read books of love, than buy them; and there are more who buy books of devotion, than read them."

There are many things in this world which can be learned only by experience, and therefore the most brilliant and acute genius in most cases ought to pay some attention to an old man who has learned wisdom by age and experience.

There are two things which ought to make us think but meanly of human glory; the very best have had their calumniators; the very worst their panegyrists.

From Las Cases' Journal.

The Emperor Napoleon shaves in the recess of the window nearest the fire-place. His first valet-de-chambre hands him the soap and razor, and the second holds before him the looking-glass of his dressing case, so that the Emperor may present to the light the side that he is shaving. It is the business of the second valet-de-chambre to tell him whether he shaves clean. Having shaved one side, he turns completely round to shave the other, and the valets change sides. The Emperor then washes his face.—After he has finished shaving each side of his beard, he sometimes good humoredly looks his valet in the face for a few seconds, and then gives him a smart box on the ear.

From the Portland Gazette.

MR. SHIRLEY—While taking a journey some time last winter through the country, I stopped at a village where, for the want of a tavern, I was obliged to call at a store to procure refreshment for my horse. Among the numerous notices and advertisements that decorated the fire place, as is usual in such cases, I noticed one of a singular character, and which, as soon as I stopped for the night at my next stage, I endeavored to note down, as nearly to the original as my recollection served me. If you think it worthy of notice in your paper, please to give it a place.

A SUBSCRIBER.

THE WET TAX.

A true statement of Mr. Ichabod Boozey's wet tax for the year 1822, viz :

One day spent each week at the store, equal to 52 days, which at 4s per day amounts to	\$31 67
Parts of other days spent at the stores every week, besides the above, say in all 20 days, at 4s	13 33
One gill new rum drank on each of those days, say 90 gills in all, at 4 cents, is	3 60
The same quantity bought to treat his brother, Obadiah Boozey, and other good friends by way of reciprocal civility	3 60
Twenty-five glasses of brandy, bought occasionally, to stimulate the system, give an appetite, and brighten the spirits, at 8 cents	2 00
Thirty glasses of gin and molasses, to counteract the evil effects of the brandy, at 6 cents	1 80
Losses sustained by reason of his being absent from home, viz :	
Damage to three tons of hay by rain, it not being got in season—good hay half spoiled, 3 tons, at 4 dolls.	12 00
Damage to the corn by brother Obadiah's cattle, that broke in while the boys were gone a fishing—about 20 bushels lost	10 00
Loss on a yoke of steers which he was obliged to sacrifice to get money to pay his other taxes, worth \$40, sold for \$30,	10 00
Bill of cost paid on a suit by Capt. T. the trader, for his rum score for 1821	5 68
Total amount of Mr. B.'s wet tax, for 1822	\$96 68

An equal stake.—A delegate in Congress offered to stake his reputation against a cent on the propriety of a certain measure which he had himself proposed. A gentleman in opposition pronounced it the most equal bet he had ever heard of.

High Living.—A certain physician, whenever he visited his wealthy patients, always went into the kitchen, to make his compliments to the cooks, saying, "My good friends, I owe you a thousand thanks for all the good services which you render us physicians; without your art of poisoning, the faculty would all be soon in the poor house."

A gentleman being asked to make a pun, requested to know on what subject. "The candle," said a lady present. "What, madam, said he, do you wish to make light of my puns?"



AGRICULTURAL ESTABLISHMENT,

NO. 20, MERCHANTS' ROW,

(At the East End of the Old Market.)

FOR sale as above, a variety of the most approved single and double mould board Ploughs, C. Howard's improved cast iron mould board, with wrought Shear and Coulter, Cast iron do. do. do. J. Seaver & Co's. do. do. Bigelow's wrought do. do. Warren's much approved common Ploughs, Sinclair's side hill do. do. Howard's much improved Cultivator, an implement highly esteemed for its use and utility in drill cultivation, Beaton's Scarifier, Bennet's Broad Cast, Seed Sowing Machines, calculated for large and small seed, Eastman's improved Straw Cutter, Safford's new invented Straw Cutter, much improved, Common hand Straw Cutters, An English Vegetable Cutter, Stevens' patent steel spring Hay and Manure Forks, Steel spring Potatoe Hoes, English cast steel broad Hoes, Common and steel do. do.

A great variety of Garden and other Agricultural Implements.

Tree Brushes, for destroying Caterpillars, an article highly recommended for that purpose, by the Hon. Timothy Pickering, whose communication on this subject appeared in the New England Farmer, April 26, page 308. May 3.



AGRICULTURAL & HORTICULTURAL SEEDS

JOSEPH BRIDGE, No. 25, Court Street, has just received, per London Packet, a variety of

GARDEN AND FIELD SEEDS,

which added to his former extensive assortment, make the most complete variety, probably in the U. States. Among them—300 lbs. Carrots, 200 lbs. Beets, 50 lbs. Mangel Wurtzel, 200 lbs. Ruta Baga, 30 bush. Peas: 100 Raddish. of sorts; Lettuce, Cabbage, Cauliflower, Kale, Brocoli, Sweet Marjoram, Thyme, Summer and Winter Savory, Sage, Hyssop, Fennell, Dill, Salsify, Scorzenera, Endive, Red and White Clover, Red Top Fowl Meadow—with an extensive collection of Flower Seeds, Bird Seeds, &c.

GARDEN TOOLS, viz: Pruning and Budding Knives, Pruning Saws, Transplanting Trowels, Garden Reels and Lines, Edging Irons, &c. Flower Pots constantly on hand. May 3.

TERMS OF THE FARMER.

Published every Saturday, at THREE DOLLAR per annum, payable at the end of the year—but those who pay within sixty days from the time of subscribing will be entitled to a deduction of FIFTY CENTS.

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Complete files from the commencement of the paper in August can be furnished.

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NEW ENGLAND FARMER.

PUBLISHED BY THOMAS W. SHEPARD, ROGERS' BUILDINGS, CONGRESS STREET, (FOURTH DOOR FROM STATE STREET.)

VOL. I.

BOSTON, SATURDAY, MAY 24, 1823.

No. 43.

The following "Report, delivered before the Provincial Agricultural Society," in Nova Scotia, will, we trust, be found interesting and useful, as well to the statesman as to the Cultivator. It was obligingly sent us in a pamphlet (of which it composes a part) entitled "An Abstract of the Proceedings which occurred the two Meetings of the Provincial Agricultural Society, during the session of 1823." The author of the report, JOHN YOUNG, Esq. is Secretary to that Society, and has obtained much, and well merited celebrity, by his writings entitled "*Letters of Agricola*," which we have frequently quoted in the progress of our editorial labours, with those marks of approbation to which they appear to us to be entitled.

REPORT,

DELIVERED BEFORE THE

PROVINCIAL AGRICULTURAL SOCIETY.

It is an observation verified by a long and uniform experience, that all the arts, whether of name or utility, are of slow growth. The inventor generally sketches nothing more than a rude draught which, though bold in the design, is likely to be inelegant in the execution; and his humble race of imitators follow the track pointed out without a single spark of that divine fire which threw the first light on the path of their labours. At times a genius arises, brighter or more fortunate than the rest, who makes some small advances either in facilitating the mode of operation, or in mastering some of the difficulties with which it is beset; and in this way, the art, from trivial beginnings, proceeds by a series of steps to some degree of excellence. But this is all the work of time. The progress throughout its whole length is distinguished by many pauses or intervals: and what begun in one age, continues unfinished and imperfect in the next. It often takes many generations to carry the system to its ulterior pitch of improvement, and to conquer the various impediments which are successively presented. The justness of these views could be shown only by a reference to the history of the elegant arts, which have at once delighted and dignified mankind, and given grace and stability to social life. But it would be idle to wander so far, when we can arrive at the same illustration by a plainer and more direct road: for the mechanic arts have been as sluggish in their progress as the ornamental; and among those none has taken a longer period in growing up to maturity than that of agriculture. Though it sprang up in the very infancy of civilization, and has been more or less cultivated in every age and country, it is still very far from perfection; and in it there are questions of great moment, both speculative and practical, which have not been, and which perhaps cannot in the present condition of human knowledge, be satisfactorily solved.

Tillage and cultivation have not only had to surmount the obstacles which are common to all the other pursuits of life, but they are encompassed with extraordinary difficulties, and are kept back and checked by some peculiar causes of retardation. Thus, if any remarkable discovery were to take place in architecture, in ship-building, in steam navigation, in road making or

in any of the common manufactures, these in a short time would diffuse themselves over the world, and be adopted by all nations; but very different hitherto has been the reception given to the real improvements which have originated in husbandry. Here prejudices of a most unyielding temper are arrayed against the progress of melioration; and nothing has been found more impracticable than to change or abolish any practices which have once taken root in a country. Husbandmen of all others are tenacious of what has been transmitted by their forefathers. The methods of cropping—the structure of the implements—the species of the cattle—which have come down to them impressed with the seal of antiquity, are regarded with a sort of sacred reverence; and it has always been an extremely hard task to clear the way for any innovation. This adherence to existing forms has rendered the inventions of one country not easily transferable to another, and has caused, in different States, almost as wide a dissimilarity in the systems of agriculture, as in the plans and maxims of government. Hence the Roman plough, which had but one handle and no mould board, and which on these accounts was faulty in the construction, maintained its ground from the origin of the republic till the final extinction of the empire in the middle of the fifteenth century—a period of nearly two thousand two hundred years. And since too the introduction of summer fallow into Scotland was of no earlier date than the reign of Queen Anne, although it had long before existed in the South of Britain, in the Low countries, and in France—places with which the Scots had frequent intercourse, particularly after the accession of James to the English crown.

If agriculture, as has been now represented, be so tardy in its movements—if its prejudices be of so stubborn and immutable a nature—and if its discoveries be so difficult of transmission from one place to another, whence happens it that the brief annals of our agricultural career present appearances so utterly at variance with those which have occurred in other countries? by what friendly agency have we been propelled forward at a rate of progression so prodigiously different from that of other people? and how comes it to pass, that innovation on received opinions and established practices have encountered here so little effectual resistance and trampled on every obstacle? Before answering these questions let me recal in a hasty manner the events of every successive year since the establishment and incorporation of this Society, during which our whole system has undergone in some of its parts a partial, and in others a total revolution.

In the Session of 1819 the first grant of £1,500 was given to the Central Board—a portion of which was laid out in the encouragement of summer fallow, of liming, and in the erection of oat-mills. Although little was effected in these objects during the currency of that year, much attention was drawn to them, and a more than common zeal evinced to follow up the directions of the Society. The minds of men were aroused, as it were, from a fatal lethargy—the eye

of curiosity and research was cast round on every quarter to explore the resources of the country—and some few essays were made in the plans recommended, but with a visible distrust of the doctrines and reasonings on which their efficacy was assumed to rest. The farmers passed the year rather in speculation than in action; and amused themselves, some in defending, others in attacking and vilifying the new order of things. The spring of 1820, when the second grant of £1000 was obtained, opened under better auspices. The trials of the past year, imperfect and scanty as they were, had partially dispelled some of the doubts which shed a malignant influence on exertion; and a faint idea began to be entertained, that Nova Scotia with industry might possibly prove independent in bread corn. The erection of oatmills gave some colour to the first dawns of hope; and the new scheme of prizes, by which was meant to be ascertained the quantity of white and green crops procurable from an acre, promised a fair opportunity of contrasting the fertility of our soil with that of other countries. You all know the issue of that comparison, and the elevation it communicated to the public mind. Oatmeal now came rapidly into repute, and obtained in the eastern districts. In the course of eighteen months, thirty one mills for manufacturing it were at once the reward and triumph of your labours; and for these altogether £260 only were offered in the shape of bounties. At the next meeting of the Legislature in 1821, the new system had begun to settle firmly in its foundation, and to present for the first time an air of stability. The theory had been put to the test, and partly grown into practice. The incredulous began to mistrust their former conclusions—the wavering gathered confidence, and waxed more and more confirmed. Manures, throughout the whole province, were collected with greater care, and every source was examined from which materials could be drawn to augment their quantity. The method of tilling was now perceptibly improved—the drilling of green crops was now coming into fashion—new implements were fabricated in several places, arable cultivation was obviously on the increase, and silently encroaching on the grazing husbandry. In the autumn of that year the effects of this fresh and growing energy became apparent in the superabundance of all sorts of vegetables and roots. Potatoes and turnips were poured into the capital in so full a tide as completely to inundate us; and these first fruits of plenty derived from our own territory were gladly hailed as a sure presage of that fullness in bread corn which would attend the future labours of the plough. Under these circumstances the last grant of £800 was voted—a sum which has been found totally inadequate to forward the objects deemed more essentially connected with the present stage of our progress.

After this succinct account, the various steps of which are within your remembrance, it will be the business of this report to trace what may be considered as the causes of this rapid and singular change in Nova Scotia, and to mark such new occurrences of favourable omen as

have more recently developed themselves, and given reason to believe that we are approaching still nearer the goal to which our efforts have been directed. The causes that have led to the change are chiefly three:—The peculiar organization of our Board of Agriculture—The honourable zeal of our leading characters in all parts of the province,—and the mixed nature of our population drawn from distinct countries, and consequently divided amongst themselves in their maxims, rules and methods of cultivation.

All along since the revival of the provincial industry, the Central Board has been the sole organ by which the legislature has acted. To it the power of direction has been transferred, and through it the grants of public money have been distributed. It has been regarded as the fountain from which the liberality of government has flowed; and on that account it has gained and preserved a preponderating influence over the minor societies. This derived and delegated superiority which it possesses in consequence of its peculiar organization, has enabled it to wield an undisputed authority and to bind in one common plan of operation the jarring energies which would otherwise have disturbed and thwarted each other. Hence to one grand point has the attention of the country been directed year after year, and the joint labours of all have been infinitely more effective than they could have been, if irregular and divergent. The Board prescribed both the objects and rules of competition, and maintained consistency in the general efforts of the agricultural body. Had the separate societies been left free of choice in their particular schemes, these would have been of an incoherent and motley character, and could not likely have been made to harmonize into a common system. One would have directed their premiums solely to the improvement of live stock—a second would have abetted greatly the domestic manufactures—a third would have thrown out lime and summer fallow as useless—a fourth would have considered oats as furnishing too coarse a meal for the delicate palate of their members—the drill machinery would have been despised by a fifth; and thus each following their own counsels and partial views would have chalked out a line of conduct that baffled and traversed that of the rest. All these evils have been prevented by the peculiar constitution of the Central Board. The Directors from the outset fixed their eye on independence in bread corn, as the main point in which all their measures should concentrate; and without any material aberration have proceeded towards it with an unwearied ardour of pursuit. Objects of minor importance were either neglected or thrown into the back ground, and this uniformity of plan has been the chief means of effecting so thorough a change in the provincial husbandry.

And this end has been also brought about by the authority and patronage of the leading men throughout the province. It is not my intention to pass an eulogy on their public spirit—a strain in which posterity much more than the present generation, will take delight in indulging; but it is worthy of notice, that wherever these men have shown themselves most zealous, there the societies were first founded, and their effects became most visible. Hence all the counties have not partaken equally of the bene-

fits of that new excitement, which wherever felt, passed like electric matter and was accompanied with sensations almost as quick and marvellous. In some the precepts of the new school were warmly received—in others they were listened to with indifference; and yet, it cannot be said that in any did they meet with a firm and inflexible resistance. This is nothing more than what might have been expected. No sentiment however popular, has ever inspired a whole people with the same degree of fervency; though if its foundation be in reason, and no violent opposition obstruct its progress, it will in the end work its way by a silent and imperceptible tendency. There are at present manifest and pleasing indications, that the more improved methods of managing land as well as the manufacture of oats are creeping westward; and it is more than probable that they will, before the lapse of two, or at most three years, insinuate themselves into every corner and cranny of the province.

But the third and main cause of the universality of that change which has taken place, lies in the mixed nature of our population. In old communities where society has gotten time to settle down into fixed habits, manners and customs, and into which there is little or no migration of strangers to disturb the accustomed course, all things soon come to wear one unvarying aspect. The style of living—the mode of dress—the religious opinions and the agricultural practices partake of a common character; and by such marks nations are usually distinguished. Nay further, so powerful is the principle of imitation when it has long time to act, that even in the same kingdom, men, occupying one particular district or county, are assimilated into a closer resemblance than are those who live beyond the verge of their immediate communion. Hence the method of cultivation in every separate county of England has some striking characteristics either in the plan of rotation—in the structure of the implements, or in the manner of harvesting; and thus in every district there is somewhat of relief to break the flat uniformity of the national agriculture. It is easy to see how a colony like this, composed of the original French, the Dutch and the Germans—the American refugees—the English, Irish and Scotch, and all these mostly brought together within the last seventy years, could not yet have reared up and cherished with much partiality any common system of husbandry. Every emigrant brought along with him the prepossessions of his native hill and valley; and the only feature in which this heterogeneous mass seems to have agreed, was a decided preference to grazing, above arable cultivation. In this state the Central Board at its establishment found the agricultural body. It was loose and disjointed; with much to amend, but with no antipathy at a stricter coalescence.

These may be justly specified as the favorable causes which have contributed to our success, and which deserve to be recorded and set in this conspicuous light, in order to inspire a just confidence in the measures which have been prosecuted, and to guard against any sudden or fitful deviation from them. The organization of the society by which it has been rendered the medium of all legislative aid to the farmer, and the honorable zeal of our public men from the noble founder of this Institution and his suc-

cessor in office down to the lowest gradation of rank, all co-operating heartily in one plan, have accomplished here a greater revolution in the space of four years, than the Board of Agriculture or the Highland Society, with their powerful means and influence, have been able to achieve in the English or in the Scottish practices. (Remainder next week.)

FOR THE NEW ENGLAND FARMER.

In the early part of the month of June, 1822 I planted a small piece of deep, rich and rather stiff soil in my garden with Mangel Wurtze seed, or root of Scarcity. The ground had been dug or forked up well a few days before. The day of sowing I raked the ground over smooth and divided it into beds or strips as nearly two feet and three fourths wide as practicable, and hoed and cast them up into ridges four or five inches high, and raked and rounded over the same smooth. Upon each of these ridges I drew two equidistant furrows, about an inch and an half deep, with two pegs about five inches long set in a rake head ten inches apart. In each of these furrows I made a row of hole about two inches deep and five or six apart with a stick about the bigness of my finger, and dropped a single beet or bunch of seed into each hole, and just filled the holes by brushing along the surface with the hand or head of the rake.

The usual culture of culinary plants was pursued through the season. Some care was taken to have one healthy plant only in the proper place, by pulling up where they were too thick and transplanting in places where there were none. It must be observed that all that were transplanted were inferior to the others.

On the 23th October I measured with Gunter's chain the plot of ground where the Mangel Wurtzels were growing, containing five ridges of double rows as above, and found it to be in length forty-five links, in breadth twenty one, including a margin of four inches, comprising, consequently, an area or superficies of 94 square links, or $1\frac{1}{2}$ square rod and $7\frac{1}{2}$ square feet, or $1\frac{1}{2}$ square rod and 3,267 square feet. I pulled them, cut off the tops, counted, measured and weighed them, and the result was 56 in number, measuring 20 bushels, and weighing 924 pounds, the average weight being nearly 1 lb. 10 oz. exclusive of the small ones given with the tops to the cows.

It will be seen by the above, that an acre of land, at the same rate, may yield of this excellent vegetable, in one season, with trifling labor, 60,160 of the average weight of 1 lb. 10 oz. measuring 2133 $\frac{1}{2}$ bushels, and weighing forty four tons nearly, the estimate being made with out reference to the fraction of 3,267 square feet.

J. PRESCOTT.

Groton, May, 1823.

The following communication is from a person who is a stranger to us, but comes recommended by some of our subscribers, who are "desirous that it should be made public." We have always been somewhat incredulous as respects the doctrine of the moon's influence on vegetation, and have hitherto thought that planet never intermeddled with a farmer's concerns, any farther than now and then to overlook his fields as a quiet spectator. Men of science, have, generally, in modern times, denied the moon any other agency in *sublunary* matters than what is displayed in

the flowing and ebbing of tides in the ocean, and the atmosphere. The philosophers of antiquity, however, held very different opinions on this subject. To give a sketch of those opinions would be to fill a large volume. We shall merely quote a short article on the subject from Rees' Cyclopaedia under the head *Timber*.

The ancients had a great regard to the age of the moon in the felling of their timber. If their rules avail ought they are these: Fell timber in the wane, or four days after the new moon; some say let it be the last quarter. Pliny orders it to be in the very article of her change, which happening on the last day of the winter solstice, the timber he says will be immortal: Columella says from the 20th to the 28th day: Cato four days after the full: Vegetius from the 15th to the 25th, for ship timber; but never in the increase, trees when most abounding with moisture, the only source of putrefaction."

Some modern scientific and practical men have likewise expressed opinions in favor of attending to the state of the moon in cutting timber. The Farmer's Assistant, p. 382, says, "We are assured from an experienced builder of some of the first rate bridges in the northern part of this country, that such timber as is to be exposed to the water, or to frequent wetness, should be felled during the increase of the moon; and hat such as is to be kept dry, should be felled during the decrease of that planet."

Dr. Deane, Col. Pickering, and we believe nearly all scientific agriculturists of modern times, have denied the agency of the moon in this and many other matters relating to rural economy, in which certain effects are said to be produced by a certain occult influence of that planet. We have always been of the *anti-lunar* party, and have thought that the man who was watching the motions of the moon in order to ascertain the proper periods for performing the important operations of agriculture, might rank with the person designated by the inspired penman, who says, "He that observeth the wind shall not sow, and he that regardeth the clouds shall not reap." Still we think it improper that any preconceived theories or great authorities should induce us to turn a deaf ear or a blind eye to matters of fact. If we should refuse to believe all which we cannot comprehend, we must deny the powers of magnetism, electricity, gravitation, and many other important and daily occurring manifestations of Almighty agency.

FOR THE NEW ENGLAND FARMER.

INSTRUCTIONS FOR FARMERS.

Having lived to the age of seventy years and upwards, and having been the greater part of that time a practical farmer, and by attentive observation having acquired some valuable information with which the great body of farmers are wholly unacquainted, the subscriber is impressed with a belief that the following remarks relative to the raising of Fruit Trees and clearing New Land, may be useful to the rising generation and to posterity.

I was born at Taunton, Bristol county, Mass. in the year 1750. In the spring of the year 1772, I came into the District of Maine, and took up a lot of land at a place then called Sylvester, now Turner, in the County of Oxford, and was one of the five first settlers. I fell five acres of trees, and prepared them for burning; in the autumn following it appeared on examination that a part of them had begun to decay, the sap being considerably rotten, while others in the same piece and of the same kind of wood were perfectly sound. This was a mystery, which at that time I could not ex-

plain or understand. It seemed to be important to ascertain the cause, inasmuch as where trees were sap rotten I had an excellent burn, and where sound it was with great difficulty that the fire could be made to run; and it is from observation and repeated experiments that I am now enabled to explain, to the satisfaction of any rational man, what I once thought to be an inexplicable mystery.

It is a truth that the Moon operates upon this earth and every thing that grows upon it much more powerfully than is generally imagined. It is also true that the effects of her operation vary regularly as she passes through her orbit or monthly course. Timber cut in the wane of the moon will be much more durable than it would be if cut between the new and full moon. Her operations are so great and so different in the various parts of her orbit, that by cutting one tree three hours before the new moon, and another of the same kind six hours afterwards, and preserving them one year, a very striking difference in the soundness of them will be discovered. If I had known as much at the age of twenty-two years as I now do, relative to the subject, I am confident it would have benefited me more than a thousand dollars, particularly in clearing hard wood land, and in getting durable timber for buildings of all kinds, and for sleds, carts, &c.

When a man is about to clear a piece of land around which he is calculating to make a log fence, he will find it much to his advantage to cut the trees around the piece in the wane of the moon, and if possible during the last quarter, but the remainder should be cut after the change. I have also found by experience, that fruit trees set out in the wane of the moon, and particularly on the last day of the last quarter, are more likely to live and be flourishing than when set out at any other time. Pruning should also be attended to when the moon is in that situation, because the sap is then in such a state of circulation that wounds made at the time will always heal without materially injuring the tree; but trees that are wounded between the new and full moon are liable to bleed, as it were, turn black, and frequently die. I would advise farmers who wish to have flourishing and profitable orchards, to pay particular attention to them in the month of May, annually, a day or two before the new moon. I have proved by experiments, for ten years in succession, that an apple tree limb or graft cut off in the month of May, about three hours before the moon changes, and carefully set out, will grow and do well. On mentioning this circumstance at a certain time to Deacon Chase, he said it made him think of one Hancock, of Martha's Vineyard, who was in the habit, at that season of the year, of going to his nursery and cutting off the small trees within about an inch of the ground, and grafting the stumps, and setting out the tops in other places. In one year from that time the tops took root so as to be in good order for grafting, which he was wont to cut off, graft, and set out as before. I inquired of the deacon whether he was particular in grafting with good fruit, and kept the secret to himself. The deacon thought it strange he should be supposed to be careless as to the kind of fruit with which he grafted, and should be private about it; but I, being a Yankee, guessed he meant to get his living by it.

My mode of grafting is different from that which is generally practised. I do not split the stumps, but take a graft of the common size, cut one side of it in the form of a wedge, as if it were to be put into the stump, taking care to cut the wood part considerably more than half off, and from the other side take off the bark only, making a square joint; in this situation I put the graft into the stump between the wood and the bark, thus giving, as will be perceived, a free opportunity for the sap to circulate. I then cover the stump with common earth several inches deep, in the form of a cone, in order to have it shed rain, letting the top of the scion extend above the cone about two thirds of its length. I consider this a valuable improvement in the art of grafting.

I have forgot the time to stick limbs into the ground, but I believe it is three hours before the full of the moon, or three hours after; yet as I am not certain I would recommend that a limb be stuck into the ground every day of the moon, in order to ascertain the fact by experiment. I have raised apples these thirteen years by taking limbs from a grafted tree and sticking them into the green sward, where they found roots sufficient for growth and support.

When you wish to procure durable timber fall your trees in the longest days in June and July, the day before the change of the moon; if you fall trees that you want should rot as quick as possible, fall them in April, that being decidedly the best in the year, and the first quarter is better than the last quarter after the change. The first day after the change is the best to cause the timber to rot quick; after this every succeeding day is less favorable to the prospect of rotting, even up to the full. The last day before the full it will not rot much faster than the first day after the full. Timber cut in the wane of the moon will grow better from the last day after the wane up to the full. March is as good as May, and a great deal better than June, for the purpose last mentioned.

DANIEL STAPLES.

Livermore, Maine.

From the Albany Daily Advertiser.

GOODSELL'S FLAX AND HEMP MACHINE.

We the undersigned have attentively examined the operation of Goodsell's Flax and Hemp Machine, at Greenbush, opposite to the city of Albany, and are of opinion, from the simplicity and solidity of its construction, and from its cheapness, and the rapidity with which one man can perform three separate processes in cleaning flax perfectly, in less than a minute, on so small a machine, not exceeding 200 lbs. weight, that it will be of great public utility, and will tend to promote the extended culture of flax and hemp, in a manner to become leading staples in the northern and western States. We do therefore recommend to all farmers to cultivate largely both flax and hemp the present year, in a full belief that they may safely repose confidence in the facilities they will derive by the introduction of said machine into general use.

S. Van Rensselaer,	Elkanah Watson,
Erastus Root,	E. C. Genet,
Thos. H. Hamilton,	Daniel James,
Henry Wager,	Philip Hooker,
Alex. O. Spencer,	Aaron Clark,
Asa Adgate,	John James.

Albany, April, 1823.

From the last Pamphlet published by the Essex Agricultural Society.

DAVID LITTLE'S STATEMENT—ON RUTA BAGA.

Newbury, November 18, 1822.

To the Trustees of the Essex Agricultural Society.

GENTLEMEN—The following is a statement of the cultivation and produce of two half acres of land, adjoining each other, cultivated with Ruta Baga, on my farm—No. 1 & 2. The soil is a light sandy loam. In 1821 it was planted with corn, and manured with about two cords of manure to the acre. The crop was small. June, 1822, the land was ploughed, harrowed, and furrowed three feet apart. Three and a half cords of yard manure was put in the furrows. The manure was covered with a plough drawn by a horse, by turning a ridge upon it. The seed was then sowed, one row on each ridge—one pound of seed. July 4th it was ploughed between the rows, and I began weeding and thinning, and continued at intervals till August 8th, leaving them 10 or 12 inches apart in the rows. They were twice ploughed and hoed. There were about forty four rows; ten of them were sowed with seed that I bought in New-York, represented to be of Cobbett's raising, but on account of age, or some other defect, but few vegetated. The 6th of July they were sowed over again; but it being late, and the season unfavourable, the crop amounted to almost nothing, though occupying the best part of the land.—The land was measured and staked off in two half acres—No. 1. and No. 2. Lot No. 1 was harvested Nov. 4, and produced 254½ bushels. No. 2 was harvested the 7th, and produced 227 bushels.

Expense of cultivating the above lot of ruta бага, calculating labour at 4s. per day.

June 3.	Ploughing,	\$1.50
	Harrowing and Furrowing,	33
	Manure,	10.50
	Covering the Manure,	33
	Seed,	75
June 6.	Sowing and covering Seed,	67
	Ploughing, weeding and thinning,	2.79
	Harvesting,	3.31
		\$20.21

I am, gentlemen, with respect,
Your obedient servant,
DAVID LITTLE.

DAVID LITTLE'S STATEMENT—ON MANGEL WURTZEL.

Newbury, November 18th, 1822.

To the Trustees of the Essex Agricultural Society.

GENTLEMEN—The following is a statement of the situation, cultivation, and production, of a lot of land cultivated with Mangel Wurtzel, on my farm. The situation is as follows: a swell inclining southwesterly, and of a rich yellow loam; in 1821 was cultivated with beets, manured with about three cords of compost manure, and produced about five hundred and thirty bushels; 1822, May 9th, ploughed, 10th, harrowed and furrowed three feet apart, four and a half cords of compost manure was put in the furrows, and was covered with a plough, then a harrow was drawn lengthways of the ridges, to smooth the ground; the seed was then sowed, one row on each ridge, with four pounds of seed, (I think less than half would be sufficient); commenced ploughing between the rows, and weed-

ing, June 10th; continued weeding and thinning at different times till they stood ten or twelve inches apart in July 16th. The work was done principally by boys, estimating two boys to be equal to a man. Oct. 31st, and Nov. 1st, and 2d, they were harvested by men and boys, and produced nine hundred and seventy and a half bushels of mangel wurtzel, two bushels of carrots, and one hundred and nine cabbages. Six swine were mostly fed with the thinnings, from the beginning of weeding till about the first of October; there were fruit trees on the above lot, sufficient, in my opinion to produce twenty one barrels of fruit. The land, that I supposed to contain an acre, when it was measured by the surveyor fell short about ten or twelve rods, and I was obliged to make out the acre by taking a small piece which adjoined the same, which was sowed late in the season, and produced a small crop, and also a piece of about five rods which adjoined, were transplanted in vacant places among carrots, on account of which my crop was much less. The above lot you will see has been divided by the surveyor, staked off in half acre lots, No. 1, and No. 2.—No. 1 produced five hundred and twenty three and a half bushels. No. 2 produced four hundred and forty seven bushels of mangel wurtzel, two bushels of carrots, and one hundred and nine cabbages.

The expense of cultivating the above lot of mangel wurtzel, calculating labour at four shillings per day.

Ploughing, May 9th,	\$1.50
Harrowing,	50
Furrowing,	50
Manure,	9.00
Ploughing a ridge over the manure, and harrowing,	1.00
Seed,	3.00
Sowing,	67
Weeding,	3.33
Harvesting,	4.46
\$23.96	

I am, gentlemen, with respect,
Your obedient servant,
DAVID LITTLE.

EBENEZER BERRY'S STATEMENT—ON DEEP AND SHALLOW PLOUGHING.

To the Trustees of the Essex Agricultural Society.

Having learned that you had offered a premium, the present year, for the most satisfactory experiment in ascertaining the relative advantages of deep and shallow ploughing, I have been induced to offer for your examination the following statement.

In the autumn of 1821, my field was ploughed by the teams that contested for the premiums of your Society. It was laid out in lots of one quarter of an acre each. The land is level, and free from rocks. The soil is gravelly, and shallow, and only of middling quality. It had been in grass four years previous, and never had been highly manured. The common burden of grass produced upon it was not more than one ton to the acre. The whole field ploughed contained two acres and a half, one acre of which was ploughed in the spring of the present year; and on this part was the best crop. That which was ploughed in the preceding autumn at the ploughing match, was well harrowed in the spring, and furrowed, eight rows to the lot, two

rods wide. Twelve ox loads of manure were put to the acre, in the holes. The manure was a mixture of the droppings of horses and neat cattle, in about equal quantities, taken from the barn yard. The ground was planted with Indian corn, from the 10th to the 12th of May. The eight rowed corn, and that which is commonly cultivated in this vicinity, was the kind planted. It was hoed three times in the usual manner. Every part was managed as nearly similar as possible. Each lot was gathered and accurately measured by itself. Lots No. 2 and 3, were the most gravelly, and most exposed to the drought; and the whole field suffered considerably for want of moisture. I am of opinion that it would have been highly beneficial to have cross-ploughed the land in the spring. The following is the product of each of the lots.

No. 1, ploughed by 28 furrows, 4½ inches deep, situate on the western side, yielded twenty and a half bushels of ears.

No. 2, ploughed by 28 furrows, 6 inches deep yielded nineteen bushels of ears.

No. 3, ploughed by 22 furrows, 8 or 9 inches deep, yielded twenty-three bushels of ears. This ploughing was apparently deeper than the soil; but in the latter part of the season the crop suffered much less by the drought than either of the lots; and had the soil been as good the crop would have been much superior.

No. 4, ploughed by 28 furrows, 6½ inches deep, yielded twenty-two and a half bushels of ears.

No. 5, ploughed by 28 furrows, 6 inches deep yielded twenty-one bushels of ears.

No. 6, ploughed by 36 furrows, 6½ inches deep, yielded twenty-two and a half bushels of ears. The soil of this lot was rather better than the other parts of the field.

From the result of this experiment, my opinion is decidedly in favour of ploughing our land much deeper than is usually practised by our farmers. Especially is it beneficial on lands liable to be injured by drought.

EBENEZER BERRY.

Danvers, November 19, 1822.

To promote the Growth of Forest Trees.

It is highly to be censured, the neglect of permitting ivy-twines, which grow to forest trees, to remain attached to them. Their roots entering into the bark rob the trees of much of their nourishment; they in a manner strangle their supporters, by impeding the circulation of their juices, and in time destroy the trees.—They should be torn up by the roots, for, if any part of them adhere to the tree, they will spread, as they obtain nourishment by their adhering roots.—*English publication.*

Cause and Prevention of the Dry Rot.

The cause of the dry rot in wood is moisture; and to prevent well-dried timber from decaying above or under ground, is by charring it well.—*ibid.*

Method of trying the Goodness of Timber for Ship Building, used in the Arsenal at Vienna.

One person applies his ear to the centre of one end of the trunk, while another, with a key, hits the other end with a gentle stroke. If the tree be sound and good, the stroke will be distinctly heard at the other end, though the tree should be an 100 feet or more in length.—*ibid.*

From the London Farmers' Journal.

SIR—You probably know that farmers are in the habit of manuring land by the eye, and in that way are liable to mistakes. I have found, in the Complete Grazier, a valuable table, and resuming the calculation to be accurate, I think its publication may be very useful.

I remain, yours, &c. ———

East Greenwich, March 27.

The following table for manuring land, is extracted from an English work entitled the Complete Grazier:

No. of heaps to load.	No. of loads per acre.							
	1	2	3	4	5	6	7	8
At 5 yards distance.	193	96	64	48	38	32	27	24
At 5 1-2 do. do.	160	80	53	40	32	26	23	20
At 6 do. do.	134	67	44	33	26	22	19	16
At 6 1-2 do. do.	114	57	38	28	22	19	16	14
At 7 do. do.	98	49	32	24	19	16	14	12
At 7 1-2 do. do.	86	43	28	21	17	14	12	10
At 8 do. do.	75	37	25	18	15	12	10	9

Explanation of the first two rows of figures in the preceding table.

The number of heaps, consisting of one load each, laid at five yards distance, is 193 to cover one acre; at two heaps to a load, 96; at three heaps, 64; at four heaps, 48; and so to the end. Each of the following rows is to be read in a similar manner.

NEW ENGLAND FARMER.

SATURDAY, MAY 24, 1823.

The Farmer's and Gardener's Remembrancer.

MAY.

INDIAN CORN.—In our last, page 334, we gave some observations respecting the best mode of planting this valuable article. We now propose to pursue the same subject. There has been some dispute among farmers whether it is best to plant it in ridges, or on single furrows. We will just give some authorities in favour of the ridge cultivation, and then state what has been urged against it. In the Reports of the Agricultural Society of New Haven County we have the following statements.

Mr. Mallet, of Milford.—“When I plough my land for Indian corn, I always lay it in ridges, whether it be sward or mellow, and plough the balks up to the ridges, and those ridges I never disturb by cross ploughing, while my corn is upon the land. I am fully convinced by my own experience, and that of almost all my neighbours, who pursue the same method, that one fifth more of corn, at least, will be raised in this manner than in any other upon the same land.”

Mr. Holbrook, of Derby.—“Upon experiment, I find the method of ploughing land for Indian corn, heretofore recommended to the Society by Mr. Mallet, to be the best I pursue. I lay all my land of every kind, in ridges, when I intend to plant for Indian corn, and plough the balks clean, lay them to the ridges, before planting; I never disturb those ridges by cross ploughing. Any person can see by looking at the part of my field, which I have treated in this way, and at another part of the same field, that was cross ploughed, that the part lying in ridges has much the advantage. I have always had evidence the same way upon experiment.”

Judge Chauncy, of New Haven.—“I have planted two acres of Indian corn this year. I ploughed in the manner recommended by Mr.

Mallet. The land has been mowed for five years past, and the sward is very tough. My crop is better than any of my neighbours have; and they agree with me that this method has increased it one third. From three years experience of this mode of ploughing Indian corn, I am fully confirmed in the opinion that its tendency is highly beneficial.”

S. W. Pomeroy, Esq. in an able treatise on “Indian Corn, and its Culture,” expresses his opinion in favour of ridge cultivation as follows. “Having a large bed of Beets planted in narrow rows, or drills, in the usual way, and a severe drought ensuing, the leaves were observed, in the middle of the day, to wilt and fall down, in all but the out-side rows, which remained erect and flourishing; and when the crop was taken up, were nearly double the size of those from the centre of the bed. That a greater exposure to the atmosphere was the principal cause could not be doubted; and the idea immediately presented, that if they had been cultivated on ridges, so far apart as to permit a plough to pass, it would in effect, be making the whole crop out side rows: and for upwards of fifteen years since, all the arable crops upon my farm have been cultivated on ridges, with manifest advantage—as to product, labour, and the unquestionable improvement of the soil.”*

On the other hand, Judge Peters, of Pennsylvania, in his “Notices for a young Farmer,” first published in the “Memoirs of the Philadelphia Agricultural Society,” says—“Unless its situation and circumstances forbid lay your cornfield level rather than in ridges, that moisture, in light soils especially, may be retained, instead of passing away, and if necessary, draw water-furrows, to carry off accidental flooding, by rains or other causes.” Col. Powell, of Philadelphia, a very able practical as well as scientific cultivator, says, “Among the various practices into which we have been seduced by the plausible theories of the advocates of British systems of husbandry, there is none which appears to me more absurd, than that which has led us to drill, or dibble our crops on ridges. The English farmer wisely contends with the evils produced by too much rain—the American husbandman should as anxiously guard against his most formidable enemy drought. I am inclined to think there is no crop cultivated in this state, which ought not to be put upon a flat surface.”† In England, we believe the ridge cultivation is less used than formerly, notwithstanding the dampness of the climate.‡

Notwithstanding the above mentioned apparent clashing of opinions, we believe that both parties may be correct. An able writer of a “Treatise on Agriculture,” originally published in the Albany Argus, in discussing the question of the different modes of ploughing [level or ridge ploughing] which is to be preferred, observes that “This question admits of no absolute answer. Still, heavy, wet clays, and in our opinion, all ground in which clay predominates, whatever be the culture should be made to take this form;” [that of ridge ploughing] “because it powerfully tends to drain the soil and carry off from the roots of the growing plants, that superfluous water, which, left to itself, would seriously affect both the quality and the quantity

of their products.* In sandy, porous, dry soils, on the other hand, level ploughing is to be preferred, because ridging such soils would but increase that want of cohesion, which is their natural defect.

“A loamy soil [which is a medium between these two extremes] ought, in a dry climate, to be cultivated in a flat way, that it may better retain the moisture; and in a wet climate, in ridges, that it may the sooner become dry.”

We perceive that some writers on this subject have confounded the distinction between the cultivation of corn in rows or drills, and in ridges. We have before observed that corn planted in drills will yield a greater product than that which is planted in hills. This fact was established by an experiment made by Oliver Fiske, Esq. and detailed in the Massachusetts Agricultural Repository, vol. vi, p. 224. Mr. Pomeroy says, “If the land is in good heart and the manure abundant, the kernels may be six inches apart [the rows being five and an half feet apart] or as many dropped together [in each hill] as to insure four stalks to remain two feet apart, [from hill to hill] in which case the manure is deposited conformably, either method will give the same number of plants to the acre; I think four stalks together afford support to each other against winds, and are not so apt to send up suckers as when single.† In putting the seed corn into the hills be careful that the kernels do not stand very near together lest the roots interfere too much with each other. Dr. Samuel Black, of Delaware, advises to plant corn in such a manner that the rows may run directly north and south. In Gen. Hull's mode as detailed page 265 of our paper, furrows were drawn north and south three and an half feet apart. No ridges were formed. Hills were then made with the hoe in these furrows two feet apart, not flat but descending to the south with a small bank on the north side of each hill for the purpose of giving the young plants a fairer exposure to the sun.

Mr. John Stevens, of Hoboken, N. Jersey, raised on an acre 118 bushels and two quarts: and was confident that he should have had a still larger crop, had it not been beaten down by a thunder storm. He ploughed his land three times before planting, and before the last planting, put on, (as report says) no less than 700 horse cart loads of street manure; and planted in double rows at 5½ feet between each set of double rows, and dibbled in each kernel in such a manner that the plants were 8 inches apart in the rows, and stood diagonally. In order to perform this with expedition he bored two rows of holes in a piece of board four feet long, so as to form equilateral triangles the sides of which were 8 inches thus

Into these holes he drove pegs about 3½ inches long, fitted a handle to the board, and, with this simple machine dibbled the holes, in which the corn was dropped. A man followed with a basket of well rotted dung, with which he filled the holes. Then came on the carts, out of

* “It has been objected to ridge ploughing, that it accumulates the good soil on the crowns of the ridges, and impoverishes the sides and furrows. These objections are obviated by narrow and low ridges, which alternate every crop with the furrows.”

† Mass. Agricultural Repository, vol. vi, p. 158

* Mass. Agricultural Repository, vol. vi, p. 156, 157.

† See page 277.

‡ See an article headed Manget Wurtzel, New England Farmer, page 38.

which the rows were sprinkled with a coat of street manure.

Mr. Lemuel Davis, in a communication to the Worcester Agricultural Society [see page 8 of the N. England Farmer] recommends to "furrow the ground four feet apart from centre to centre—to plant the corn in two rows, nine inches apart, diamond fashion. It is a very simple process, to level the manure when spread in the furrows, and take a pair of small wheels, with pegs in them, made for that purpose, put them on an axle-tree nine inches apart, which will dot the ground with accuracy, when drawn across the field so that a child of ten years may drop the corn without the least difficulty."

The distance at which the corn should be planted, either in hills or rows, depends on the size of the kind of corn you plant. In the southern states the corn is generally planted at the distance of seven or seven and an half feet from hill to hill in every direction, when four or five stalks are suffered to grow in each hill; or four feet apart, when two stalks only are permitted to stand in each hill. Mr. Cooper, of New-Jersey, a celebrated agriculturist says, "In every kind of soil I have tried, I find planting the rows six feet asunder each way, as near at right angles as may be, and leaving not more than three stalks in a hill produces the best crop."

Mr. Deane directed to let the ground be cut into exact squares by shoal furrows made with a horse plough, from three to four feet apart, according to the largeness or smallness of the kind to be planted, and to put five corns in the places where the furrows cross each other.

"Shell seed gently by hand that it may not be torn or bruised at all rejecting about an inch at each end of the ear. And if any corn appear with black eyes, let them also be rejected, not because they will not grow at all, the contrary being true; but because the blackness indicates either some defect in drying, or want of perfection in the grain.

"Some steep their seed. But in general it had better be omitted; for it will occasion it to perish in the ground, if the weather should not prove warm enough to bring it up speedily. If planting a second time should become necessary, by means of the destruction of the first seed; or if planting be delayed on any account till the beginning of June, then it will be proper that the seed should have boiling water poured on it. Let it not soak more than half a minute, and be cooled speedily, and planted before it dries. The corn will be forwarded in its growth several days. The seed should be covered with about two inches of earth." Judge Peters says "the seed should be wetted and rolled in plaster, or steeped in a decoction of Hellebore or copperas: or what produces a surprising effect, a strong solution of salt petre; but do not soak or steep it too much. In dry weather, the germination is accelerated by the steeping injuriously; so that the plume and radicles perish: and in long wet seasons they rot."

There have been a variety of other methods recommended for preparing seed corn in such a manner as to preserve it from birds and insects. Dr. Deane directed to "steep some corn in a strong infusion of Indian poke, or refuse tobacco, and sprinkle it over the ground before the crop is up. White threads stretched over a field of corn, will prevent crows from alighting

upon it. But I doubt whether this will deter any other birds."

It has been often recommended to pour warm tar over seed corn, and stir it in such a manner that every grain may receive a coat of tar, and then roll it in ashes, or plaster of Paris. Seed dealt with in this manner will not be pulled up by birds, neither will it come up at all, unless it is well soaked before the tar is applied. The tar makes a coat or enclosure for the kernels, which will not suffer moisture to penetrate it so as to cause vegetation. It would be better, we imagine, to pour water over tar or turpentine, and let it stand two or three days, till it becomes strongly impregnated with those substances. In this water soak your seed corn, and then roll it while wet, and just before planting, in plaister. Supposing also you should boil a few elder roots in this water before you turn it on the tar.

The soil having been broken up from five to seven inches deep, or if more the better, requires shallow planting. When you plant on what is called green sward land, or grass land, merely turned over without ploughing, holes should be made quite through the furrows, and dung put into the holes. If this caution be not observed the crop will be uneven, as the roots in some places, where the furrows are thickest, will have but little benefit from the rotting of the sward. But if the holes are made through the roots will be fed with both fixed and putrid air, supplied by the fermentation in the grass roots of the turf.

REMEDY FOR WORMS IN THE HEAD OF SHEEP.

In our paper No. 26, page 205, may be found some account of this disorder, its causes, and its symptoms. We shall, however, in this place, give a brief recapitulation of them, and mention a simple preventive remedy which a gentleman assures us is infallible. The disorder is caused by grubs, a kind of bots proceeding from a large bee called by scientific writers *Oestrus Ovis*.—The bee lays its eggs in the nostrils of the sheep the last of August or first of September, where they soon hatch, so that by the 20th of the month you may discover in the cavity between the nostrils and the wind pipe, from 25 to 100 small white grubs, with black heads, and a black streak on the back. They obtain their growth in July or August of the following season. The symptoms appear towards spring, at which time the infected animal shows appearances of the disorder by a sickly countenance, wasting of the flesh, and apparent attempts to blow something from the nose. The wool stops growing, generally much of it falls off; many of the lambs are lost, and those which live are stunted by reason of the ewes being poor and sickly, and consequently giving but little milk. Sometimes the sheep affected lingers along, pining away continually, and dies in June or July.

These worms or sheep-bots are very tenacious of life, and will exist for some time in alcohol, sulphuric acid, spirits of turpentine, &c. The usual remedies are vinegar, a decoction of tobacco, assafoetida, &c. injected into the nostrils of the sheep. Dry snuff blown up the nose with a quill is likewise sometimes made use of. These are all troublesome and uncertain. The remedy recommended by our informant, who says he has had abundant experience of its efficacy, is to smear the nose of the sheep with tar. Apply it before the fly makes its appearance,

and continue its application till the time of its departure. It would, probably, be safest to begin to use it about the first of August, and continue its use till the last of September. We do not learn how often the tar should be put on but would advise to keep the nose constantly smirched so that it may be visible. Tar is likewise said to be an excellent remedy for consumption of the lungs, cough, rot, &c. in sheep. It promotes and confirms the health of the animals, and operates as a specific against nearly all the diseases to which they are subject.

The celebrated anatomist VERHEYN, who was buried in the public cemetery in Louvain, is said to have been worthy of the following epitaph, which was inscribed on his tomb:

PHILIPPUS VERHEYN,
Medicinæ doctor et professor,
Partem sui Materialem,
Hic
In coemeterio condi voluit,
Ne templum dehonestaret,
Aut nocivis halitibus inficeret.

TRANSLATION.

Here lies deposited the mortal part
Of one devoted to the healing art,
PHILIP VERHEYN, a sage who thought it best,
The dead should in their cemeteries rest,
Beneath some distant and secluded sod,
Not poison and pollute the House of God.

Mortification.—Dr. Ainslie, of the British East India Company, has written a letter to the Editor of the Courier, stating, that he has discovered that the *Balsam of Peru* is a sovereign remedy to arrest the progress of mortification. The mode of using it is to dip a piece of lint in the balsam and lay it over the affected part the moment mortification appears; then to be repeated morning and evening until healthy granulations shall appear, then simple dressing will answer. The doctor says he was first induced to try the efficacy of the balsam in the torrid zone, in consequence of its antiseptic qualities, and its peculiar grateful odour, which so admirably conceals the fætor of putrefaction. He says it smarts a good deal for a minute or two and then feels quite grateful. It is a valuable discovery if it be found efficacious.

FOREIGN.

LATE AND IMPORTANT NEWS.

The Packet Ship Leeds, Capt. Stoddart, lately arrived at New York, brought files of papers from London to the 22d, and from Liverpool to the 24th April, sixteen days later than had been before received. On the 7th of April the French passed the Bidasoa, the frontier river, and advanced into Spain. They, previously, had a skirmish with some straggling French and Italians, in which the latter were dispersed with the loss of fifteen killed and wounded. Four French officers were likewise wounded. At St. Sebastian the French received a check, with the loss, according to some accounts, of about 800 killed and wounded. A letter from Paris states that the French army goes on but slowly—they had experienced two defeats before St. Sebastian and Pampeluna. The constitutionalist fight with a desperation not expected by the French. The affair at St. Sebastian, according to private accounts, was very serious, and the hospitals were full of French soldiers. The royalists at Valencia, according to a Madrid article, have been defeated with the loss of 1600 killed and made prisoners. The Duke d'Angoulême has issued a proclamation, much in the usual style of such articles, in which the Spaniards are, in substance, informed that they are to be attacked for their own benefit. "I am about," he says, "to cross the Pyrenees, at the head of a hundred thousand Frenchmen, but it is to support the Spaniards who are the friends to order and the laws; and to aid them to

berate their captive King; to raise again the altar and the throne," &c. Flying columns of light troops move about between the Pyrenees and the Ebro. They over round the French, harass them and leave them nothing to eat. It is declared that the most determined spirit of hostility is every where prevalent throughout Spain against the French, and that no idea of submission existed. It is also said that Mina, at the head of a formidable body, had invaded France.

The French government, it is stated, acting on the principle that France is not at war with the Spanish sovereign and nation, but only with a faction, will not grant any letters of marque, nor permit any privateers to be fitted out.

All the Constitutional Spaniards in France are ordered to leave the Kingdom.

England appears to be determined to preserve a system of neutrality on certain specified conditions. In Parliament, on the 17th April, Mr. Canning and Mr. Brougham exhibited a rough outline of a quarrel, but before they could finish the sketch they were threatened to be taken into custody of the Sergeant at Arms. Mr. B. accused Mr. C. of "monstrous trucking for the purpose of obtaining office." Mr. C. replied, "I use to say that that is false." Certain explanations and modifications ensued, which brought about a reconciliation without the intervention of the weighty and conclusive arguments which are prescribed by the modern code of honor as necessary to settle such a controversy.

LONDON, April 21.—Extract of a letter from Paris, dated Saturday evening: "The French frigate *La Guerriere*, has been taken almost in sight of Brest, by two armed vessels bearing Spanish colors, one of which was a brig carrying 15 or 20 guns. The frigate was peppered in high style. You may rely upon the truth of this."

In the British Parliament, April 14th, the promised statements were made relative to the diplomatic proceedings with the foreign powers. After giving a history of the negotiations, and the unavailing attempts to preserve peace, Mr. Canning communicated a copy of his last despatch to be communicated to the French government. This despatch states—

"That England does not expect France to establish military occupation of Spain, nor to force the King or any measures derogatory to his crown, or to his existing relations with other powers.

"That she expects the dominions of Portugal will be respected.

"That she expects no attempt will be made by France to bring under her dominion any of the American Provinces which have thrown off their allegiance to Spain.

"That a frank explanation upon these points was necessary, in order that England might maintain a strict neutrality."

Mr. Canning then stated that assurances had been received that no intention had existed in France of attacking Portugal. He further stated, that no hope had ever been held out to Spain that England would pursue any other course than a strict neutrality, which she was still resolved upon. He concluded by expressing a hope that Spain would come off triumphant.

From the Daily Advertiser.

THE STATE OF THE SEASON.

MR. HALE—I have for so many years given some account of the progress of vegetation, that I find my friends, in town and country, look for it. It is perhaps of as much use as the diaries of the weather, and common thermometrical statements. In some short remarks, which I sent you early in this month, I observed that though the season was exactly one month behind the last, in the beginning of April, yet like the Siberian summer, it had advanced so rapidly, that on the first of May it had caught even the precocity of the last season. After that communication, long continued cold easterly and northerly winds set in. On the 6th of May ice was made in the country, sufficient to bear a

child of ten years of age, and all the appearances of the progress of vegetation ceased. The buds half started from their winter protection, remained for fourteen days, nearly quiescent—yet the season has advanced within a few days and has acquired an average rate of forwardness. Rains have been most abundant—springs which had been deficient for two years are amply supplied—the grass is well set, and the season promises abundantly as to all the fruits except apples. The shew of pear blossoms never was exceeded—the country is literally white with them. The apples will of course be less numerous, owing to the extraordinary efforts of the trees last year—yet there will be an ample quantity, and while less loss will be sustained by the cultivator, the consumer will feel no failure in the supply. If apples may be a little dearer, the more important article of hay will probably be cheaper. It will be impracticable to give a schedule of the progress of the various seasons without repetition—yet few persons preserve the statements of former years, and it is not possible to give a correct view without comparing many years. This will enable the curious to make useful remarks—and it will convince all, that however different the weather, and the progress of vegetation, we have a superintending Providence above us all, who regulates all seasons in mercy, and compensates by the heat or moisture at one moment, all that may be deficient in another.

The statements are made from the same tree or plant—in the same exposure, and situation, and therefore not liable to the variations which would appear from transient observations of passengers or travellers.

The Cherry—its first opening,

In 1813, May 10	In 1815, May 10
In 1816, May 6*	In 1817, May 6
In 1818, May 17	In 1819, May 6
In 1820, May 2	In 1821, May 9
In 1822, May 1	In 1823, May 7

* This was the most disastrously cold year afterwards.

The Pear—its first opening,

In 1813,* May 20	In 1815, May 20
In 1816,† May 12	In 1817, May 7
In 1818,‡ May 24	In 1819, May 17
In 1820, May 9	In 1821, May 13
In 1822, May 4	In 1823, May 13

* Cherries opened this year on the 10th of May, but cold winds kept back the pears to the 20th.

† This was an exceedingly cold season afterwards.

‡ This season deserves notice, for though so late it was a fine one.

The Apple—its first opening,

In 1813, May 23	In 1815, May 25
In 1816, May 13	In 1817, May 12
In 1818, May 25	In 1819, May 19
In 1820, May 11	In 1821, May 13
In 1822, May 9	In 1823, May 19

I will add the Lilac, the ornament of our Election day.

In 1817, May 19	In 1818, May 27
In 1819, May 25	In 1820, May 20
In 1821, May 20	In 1822, May 12
In 1823, May 22	

Thus it will be seen, that the present season is about an average one in point of forwardness, while it is far above the average in its verdure and promise.

N. B.—There is some danger, that seeds of squashes and other tender plants committed to the ground early in May, have rotted and will require replanting. It is, we know, the fact in some places.

A ROXBURY FARMER.

Roxbury, May 22, 1823.

Irish Trick.—The Marquis of Wellesley, in an official despatch, gives the following statement of Irish cunning, which is quite up to any yankee trick we have heard or read of. In speaking of the burning of stacks of grain by the white boys, or Irish rebels, he observes:

"It is a curious circumstance, however, in the character of these transactions, that, in several instances, the grain had been artfully separated from the straw, and had been sold by the proprietor of the stacks for its full value, and that the same proprietor had destroyed the stacks of straw by fire, with a view of recovering from the barony the full value of corn already sold. These cases were not unfrequent. The incendiary was of course undiscoverable. The fact of such numerous and frequent conflagrations was alleged to be an indisputable proof of general combinations, until the vigilance of the military and police actually detected a considerable number of the stacks of straw cleared of the grain, and prepared for the fire, and thus discovered the whole mystery of this double fraud."

Of the numbers of the N. E. Farmer already published, only forty sets remain on hand, and they are daily called for. Those, therefore, who wish for the first volume complete, must apply immediately. May 24.

PRICES OF COUNTRY PRODUCE, &c.

[Revised and corrected every Friday.]

		FROM	TO
		D. C.	D. C.
ASHES, pot, 1st qual. . . .	ton.	160 00	165 00
pearl do.		165 00	00
BEANS, white,	bush	1 00	1 10
BEEF, mess, 200 cwt. . . .	bbl.	9 50	10 00
" cargo, No 1,		8 50	9 00
" No 2,		6 75	7 00
BUTTER, inspect. 1st qual. .	lb.	13	14
" 2d qual.		10	11
small kegs, family, . . .		15	16
CHEESE, new milk		7	9
FLAX		8	9
FLAX SEED	bush	85	90
FLOUR, Baltimore, superfine,	bbl.	7 75	7 87
Genesee		7 75	7 87
Rye, best		5 00	5 50
GRAIN, Rye	bush	72	75
Corn		65	70
Barley		68	70
Oats		40	42
HOGS' LARD, 1st sort . . .	lb.	9	
HOPS, No 1,		10	12
LIME,	cask	1 25	1 50
OIL, Linseed, American . .	gal.	65	00
PLASTER PARIS	ton.	3 00	3 25
PORK, Navy Mess	bbl.	12 00	12 50
Bone Middlings		14 00	14 50
Cargo, No 1,		12 00	12 50
Cargo, No 2,		11 00	11 50
SEEDS, Herd's Grass . . .	bush	2 25	2 50
Clover	lb.	8	9
WOOL, Merino, full blood, washed		55	65
do do unwashed		45	48
do 3-4 washed		45	55
do 1-2 do		40	45
Native		38	40
Pulled, Lamb's, 1st sort .		55	60
do Spinning, 1st sort . .		50	55

PROVISION MARKET.

BEEF, best pieces	lb.	8	9
PORK, fresh		7	9
VEAL,		6	7
MUTTON,		5	7
POULTRY,		12	15
BUTTER, keg & tub		15	16
lump, best		18	20
EGGS,	doz.	12	13
MEAL, Rye,	bush	78	80
Indian,		75	
POTATOES,		40	45
CIDER, liquor,	bbl.	1 50	2 25
HAY, best,	ton.	20 00	22 00

AMERICAN SKETCHES.

THE FARMER'S FIRE-SIDE.

Shade of immortal Burns! where'er thy home,
On Scotia's misty hills, or fixed on high,
Beyond the star-lights of the welkin dome,
Too holy, and too bright for mortal eye,
Mid amber streams and murmuring melody,
Great bard of lowly life! propitious bend,
And while the rustic song, unskill'd, I try,
Thy love of truth and independence lend,
And with its warblings wild, thy master spirit blend.

The world I've search'd, and it has many a rose—
But, ah! the thorns beneath them that remain,
Proclaim the world not destitute of woes,
And, when I look'd for pleasure, give but pain.
No more amid its scenes my soul restrain;
Back to my boyish days! Let memory guide
The tired and flagging spirit once again,
To scenes most dear—to hill, and rolling tide,
And that old cottage, once that grac'd its verdant side.

Meekly arose its moss-besprinkled wall,
One ancient beech magnificently bore
Its branches o'er it, overshadowing all
The space around its hospitable door;
Within, might one behold its little store,
The plates well rang'd, the shelves that neatly grac'd,
The chairs of oak upon the sanded floor,
The wheel industrious in its corner plac'd,
The clock, that hourly told, how life runs on to waste.

Once more the pensive eve with silent tread
Returns to hush the noisy world to peace;
Once more the Farmer seeks his humble shed,
Glad from his daily toil to gain release;
His task accomplish'd and his heart at ease,
He hails betimes the Fireside of his cot;
And there, as from the hills the shades increase,
"The world forgetting, by the world forgot,"
He tastes the simple joys, that sooth his quiet lot.

His patient herd, ere set the beams of day,
With lowings oft, alarm'd the neighboring plain,
Now penn'd within the well-known bars, they pay
Their milky tribute to his pails again.
His flocks upon the distant hill remain,
Their tinkling bells sound in the passing wind;
Though his be not the lordling's wide domain,
Yet fails he not a due supply to find,
From lowing herd and field, and from the bleating kind.

To greet him home, the crackling faggots burn,
The housewife, busy round the blazing fire,
Cheers, with her smiles her Farmers lov'd return;
His children climb around their honor'd sire,
And to his fond caress once more aspire;
Inquisitive, they ask of each fair field,
Whether its hills, than their own cliffs are higher?
What wonders there of cascade are reveal'd?
What flowers enchanting bloom, what gifts the moun-
tains yield?

Her father's knee, his Bertha soon surmounts,
Around his neck her tender arms she throws,
His Bertha, from whose eyes like diamond founts,
The living fire through locks of ebony glows.
Nor she alone; he on them all bestows
Alike his kisses and alike his tears,
Who bloomed (on autumn's bosom, like the rose,
'Mid cold and storm its loveliness that rears,)
To cheer his ripper age, and deck his vale of years.

To him, how bless'd the closing hours of day!
His wife, his children, those that love him, near!
How sweet his cot's own hospitable ray!
How kind its welcome, and its joys how dear!
The cricket chirps, the sacred scene to cheer,
The embers half illumine the humble hall,
The shaggy mastiff sleeps, devoid of fear,
The playful kitten round and round the ball
Urges with active sport, unmindfully of all.

The children mingle in Grimalkin's mirth,
And laugh and busy prattle do not spare,
Such cheerful sport, the chirper in the hearth,
Scenes, which eve returning doth repair,
Charm from the Farmer's bosom carping care,
And banish it to "blank oblivion foul."
Hark! loud and startling through the misty air,
The prowling wolf resumes his nightly howl,
And from the hollow oak is heard the muffled owl.

How oft I've sought that distant, lonely cot!
A grandam dwelt there, when my days were young,
And there, when Christmas logs blazed red and hot,
And wintry blasts their nightly descant sung,
My soul delighted on her lips was hung,
As spoke she oft of dreadful deeds of yore,
How stern Wahawa, like a tiger sprung
Upon a lonely cot, and tides of gore
Were shed, as when the clouds their vernal treasures
pour.

Her hands were withered, as an autumn's leaf,
Her cheeks were like a parch'd and shrivel'd scroll,
In truth, though human life at best be brief,
She witness'd eighty years their circuits roll,
And friends and kindred reach'd their earthly goal;
And sitting by her busy wheel to spin,
While swift the hours at evening onward stole,
We teased her oft some story to begin,
And as she mov'd in sooth her old projecting chin,

She told of Mog, Madockawando, all
From Hopehood down to Paugus' frantic yell,
And, as her lips the bloody deeds recall,
And, as with upturn'd gaze we heard her tell,
Unconsciously the chrystal tear-drops fell,
For, from our infancy, we'd heard and read
Of Chiefs from Canada, and knew full well
Of Sachem's wrath, that feasted on the dead,
And shook the haughty plume and arm with life-blood
red.

My native hills, my loved, my honored land,
Ye vallies dear, how cling my thoughts to you!
Long as my footsteps tread this earthly strand,
The throbs that heave my bosom shall be true,
To all the witching scenes that childhood knew;
'Tis joy, 'tis heaven to breathe one's natal air,
To climb the hills, deck'd in the morning's dew,
And bending o'er our fathers' graves, to swear
No tyrant shall disturb the dust that slumbers there.

Such scenes, such tales, such homebred ties, can fill
With fervid ecstasy, the raptur'd mind,
And teach with patriot glow the breast to thrill,
And beat to all that's noble, generous, kind;
One evening to that cot my steps inclin'd,
The giant beech-tree wav'd before its door,
The distant clouds were driven before the wind,
The mountain cataract was heard to roar,
Paler the tranquil moon, than foam on ocean's shore.

There too, a soldier bent his nightly way,
Who'd borne his rifle in the old French war,
And mingled oft in many a bloody fray,
And bore upon his visage many a scar;
Weary his step, his own lov'd home was far,
The locks upon his silver'd head were few,
His eye was like the winter's clouded star,
The arm, that once the glittering broad sword drew,
Was nerveless now with years, yet much he'd seen
and knew.

The staff, that in his dexter hand he bore,
Was parted from an oak, whose branches spread
Near wild Cocheco's oft remembered roar;
And bending to the Farmer's cot his tread,
He gave one rap, and well his purpose sped;
The Farmer hail'd him to his lone abode,
Gave him a portion of his cup and bread,
And soon, forgetful of the tedious road,
How fields were lost and won, the aged soldier show'd.

In Fifty-nine, on Abraham's blood-red plain,
(The veteran thus pursued his warlike tale,)
When heroes fell, like summer drops of rain,
When rival standards flash'd upon the gale,
And shouts were heard, triumphant songs and wail,
Where Cadaraqui holds his giant way,
I fought with Wolfe, call'd from the dear-lov'd vale,
And dark Piscatawa's glades of green array
To cross the mountains blue to distant Canada.

Hard was the tug of war, severe the strife,
Plumes, swords and ensigns swept along the field,
Full many a warrior, prodigal of life,
Too bold to flee, too proud of soul to yield,
His valor with his dearest life-blood seal'd;
Slow bowed in dust, fell Lewis of Montcalm,
To neither host was triumph yet reveal'd,
Oh, wither'd be the soul that wrought such harm,
Soon Wolfe falls, bleeding, low, nerveless his mighty
arm.

A soldier lifted up his drooping head,
Dim grew th' ethereal flashes of his eye,
And from his breast the streams gush'd darkly red,
And every gush heav'd forth a blacker dye;
High rose the clamorous shout, "they fly, they fly!"
'Who fly?' aro'us'd to life, the hero cried,
A thousand lips awake the joyous cry,
'The foe, the foe!'—the gallant Wolfe replied,
Clasping his hands in praise, 'I fall content,' and died.

Thus spoke the soldier! peace, ye mighty dead!
Be yours both peace and glory, chiefs of yore!
Who clad in armor generously shed,
Where clashing steel met steel, roar answer'd roar,
For home and liberty your bosom's gore!
Thanks be to Him who our brave fathers nerv'd,
Boldly to stand, when fiery floods came o'er,
From honor's upright path, who never swerv'd,
To ages then unborn, who freedom, bliss preserv'd.

And tho' such tales were heard with many a tear,
And memory, fancy, feeling, all possess'd,
Yet soon, in truth, the gaiety and cheer,
That ever animate the youthful breast,
By solemn thoughts, unconquer'd, unsuppress'd,
Awoke in sports anew; the slipper's sound,
By youth and village maiden, ne'er at rest,
Was driven through the circle round and round,
And every cheek did smile, and every heart did bound.

Even the old soldier felt his bosom thrill
With memory of scenes, that erst he knew;
The visions of the past his spirit fill,
And as around the room the younglings flew,
At blind-man's-buff, he would have join'd them too
But age to youth will not wing back its flight;
To sit and smile was all that he could do,
And bravely cry out, "wheel, and left, and right,"
To him who blinded was, and caught them as he might.

At blind-man's-buff, who hath not often play'd,
At pledges oft the moments to beguile,
When sober evening lends her peaceful shade;
When heart replies to heart, and smile to smile?
The hearth is burned with the oaken pile,
Such as New Hampshire's forests well can spare;
Still flies the slipper round; a few meanwhile
The warriors of the chequer-board prepare,
The garrulous old folk draw round the fire, the chair.

But now the white moon, thro' the clouds reveal'd,
Doth tread the topmost arches of the sky;
The farmer's cot, the cultivated field,
The brook, the plain, the mountain soaring high,
Beneath her beams in wild profusion lie;
The dog upon the ground hath laid his breast,
Forgotten his howl and sealed his restless eye,
The sturdy wood-cutter hath gone to rest,
The flock is on the hill, the bird is on the nest.

Farewell, thou cottage, for 'tis late at eve,
Farewell, ye scenes to memory ever dear,
Now old, and youth, and maiden take their leave,
Their 'kerchiefs wave, and with adieu sincere,
The rural company soon disappear,
Some thro' yon scatter'd woods that skirt the moor,
Some to yon mountains, craggy, bold and drear,
And by the Cottage Fireside once more,
Devotion lifts her voice, as she was wont of yore.

The patriot Farmer reads the sacred Book,
Then with the wife and children of his heart,
With solemn soul and reverential look,
He humbly kneels, as is the Christian's part,
And worships Thee, our Father, Thee, who art
The good man's hope, the poor man's only stay,
Who hast a balm for sorrow's keenest dart,
A smile for those, to Thee who humbly pray,
Which, like the morning sun, drives every cloud away.

Thou Lord of heaven above, and earth below,
Our maker, friend, our guardian, and our all,
The Farmer keep from every want and woe,
Nor let the thunderbolts, that most appal,
Of righteous vengeance dreadful on him fall;
With him, preserve his dear, his native land,
A cloud be round her, and a fiery wall,
With thy displeasure every traitor brand,
And centuries yet to come, oh, hold her in thy hand.

—N. E. FARMER, published every Saturday, a
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paid in advance.

NEW ENGLAND FARMER.

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VOL. I.

BOSTON, SATURDAY, MAY 31, 1823.

No. 44.

REPORT,

DELIVERED BEFORE THE

PROVINCIAL AGRICULTURAL SOCIETY.

(Continued from page 338.)

The second and the last part of this Report was to take notice of any circumstances which have transpired during the last year, either to encourage hope in the ultimate accomplishment of our independence, or to suggest the need of wise precautions against the evils with which it may be threatened.

The only circumstance of this latter description, worthy of regard, has been the disturbance of the relation naturally subsisting between the prices of bread corn and of meat. When we consult any tables of the rates of provisions either in Britain, France, Germany, or other European countries, we shall find this rule to hold universally, that butcher meat is double the price of flour, and butter double that of meat; as for instance, when flour is quoted at 2d per pound, beef is at 4d and butter at 8d—the second being double, and the last quadruple of the first; and that these rules have obtained not at one time and in one place, but as far back as there are authentic annals, and in every nation where statistical accounts have been preserved.* It cannot be denied that these relations are perpetually disturbed by the operation of demand and supply; but still, whenever any of the articles rise above, or sink below the assumed standard, there is a tendency in the prices to adjust themselves at the points of equilibrium.

* As the proportion of prices here stated to exist between flour, meat, and butter, may be considered as purely hypothetical, I shall present some tables, constructed on minutes taken by Arthur Young in France and in England. Just before the breaking out of the revolution, that gentleman landed at Calais, for the purpose of taking a survey of French husbandry; and in the prosecution of his plan, noted down every thing relating to wages, provisions, the methods of cultivation, the nature of crops, manures, and in short all sorts of materials which might serve as data for the political economist. These minutes were taken in 1787 to 1789 in all the departments of France; for he traversed that kingdom by three separate routes, and therefore his general averages are fairly drawn. In looking into the particular minutes, I observe that the relation between the prices of meat, butter and bread is somewhat disturbed. In arable districts, for instance, bread is lower, and meat and butter are higher than the general average; and the reverse takes place in tracts fitted for pasturage; yet the ratio on an average of the whole kingdom, comes out with wonderful accuracy. Travels in France, vol. i, p. 441—under the article, Price of Provisions.

RECAPITULATION.

	French Money.	English Money.
Beef per lb. on average of 76 minutes	7 f.	3 1-2
Mutton do.	7	3 1-2
Veal of 72 minutes	7 1-2	3 3-4
Pork of 28 minutes	9	4 1-2
Butter of 33 minutes	16 3-4	8 1-4
Bread of 67 minutes	3	1 1-2

A pound of bread, notwithstanding the labor of baking it, is always cheaper than a pound of flour, because the former is to the latter as 36 to 26, that is to say, 20 lbs of flour will, after adding water, salt and yeast, make, in all ordinary cases, 36 lbs of bread. Flour, therefore, in France, could not be less than 2d per lb, when bread was at 3 sous. The proportions then in France, from these numerous and extended minutes

brum. The great reason for this difference of value lies in the cost of production. A farmer can raise a pound of oatmeal or flour much more easily than he can raise a pound of beef or mutton; and therefore he should be rateably paid for his labor. But moreover, meat is more nutritious, or capable of sustaining the body longer, quantity for quantity, than bread corn; and on this other account an effective demand will always exist for the former at double the prices of the latter. Amongst us during this last year the relation subsisting between these two articles of farm produce has been entirely subverted. Beef during the greater part of winter could be purchased at 1 1/2d or 2d per lb. while oatmeal commanded 17s 6d, and flour 20s per cwt. At the present moment beef is worth 3d in the market, and superfine flour at 9 dolls. per barrel—that is at 2 1/2d per pound. This is a complete subversion of the order which holds in Europe, and demands the most serious and grave deliberation, as involving the prosperity of our rural economy. One grand error in this country has been the want of arithmetical calculation, in reckoning up the cost of the different sorts of produce which are brought to market. Few have any just idea of what it takes to rear a pig, a lamb, or a calf. Our farmers are thus ignorant, in a great measure, of relative prices dependent on the expense of production, and they conduct their sales under the guidance of the blindest chance. No man surely dare affirm that a given quantity of meat can be raised as cheap as a given quantity of flour, and yet so it is that the former during the whole of last winter has been lower than the latter. In England, where agriculturists put down every item of expense under its appropriate head, and keep books on as correct principles as does the merchant, it is recognized as an invariable rule, that unless beef fetch double of flour, the occupier should break up his grass lands and bring them under tillage. The relation in price between these two produces a perpetual oscillation between pasturage and tillage, and determines the farmer in the destination of his fields.

may be justly quoted as follows—Flour at 2d, meat on an average of all the sorts nearly 4d, and butter at 8 1-4d per lb.

By the same writer, and in the same place, it is said that in England the prices in 1790 were

Beef	at 4d. per lb.
Mutton	4 1-2
Veal	4 1-2
Pork	4
Bread	1 3-4 equal to flour at 2 1-4 per lb.

In further corroboration of these relative prices, see Young's Tour, East of England, performed 20 years before, in 1770, vol. iv, p. 303.

Beef, average of 37 places, 3 1-2d per lb.
Butter do. 6 1-2
Bread do. 1 1-2 flour being 1 3-4 lb.

See also his Tour in Ireland in 1776 to 1778, vol. ii, page 149.

Beef on an average of the Kingdom	2 1-2d per lb.
Mutton do.	do. 2 3-4
Veal do.	do. 3 1-2
Average of the above 3 meats is a fraction short of 3d.	
Butter	5 3-4

The price of bread is not mentioned, because the peasantry lived chiefly on potatoes.

He tills more when bread rises above, and less when it descends below its proper level.*

I have been at the more pains to set this proposition in a plain light, because of its vital importance connected with our present condition and future prospects. The opinion has been long popular, that the province was fitted to be a pastoral rather than an agricultural country; and this has been received without much examination, and gained an almost universal assent. It has not failed to produce a strong effect on rural industry, and to create a corresponding bias towards the hay culture.—On this account our finest lands have been laid down to grass, and our marshes, which under the French were fruitful of corn, and were alternately under fallow and wheat, have ceased

* It will be found by recurring to our last *Price Current*, p. 343, that superfine Flour is about \$8 a barrel: which contains 196 lbs. and will give 4 cents 1-10th nearly per lb. Beef, best pieces, from 8 to 9 cents, and lump Butter from 18 to 20 cents. That is, butcher's meat is about double the price of flour, and butter double that of meat, which, according to the author of this report, are about the same relative proportions which these articles of provision bear in "Britain, France, Germany, or other European countries." It would seem, therefore, that in New England, there is no reason, to be derived from the state of the market prices of these articles in Boston, for any "oscillation between pasturage and tillage." The relative prices which are given for rye-meal and Indian-meal, compared with the price of flour, appear to us to be about correct, and prove, so far as the rules of the able author of the Report ought to influence our tillage, that New England farmers have, as a body, decided not improperly in "determining the destination of their fields."

There are, moreover, a variety of considerations to be taken into view, as respects the most profitable kind of culture. If a farmer lives at a great distance from market, butter, beef & pork will perhaps be found most profitable, because most easily conveyed to the place of sale. The nature of the soil, the facility of procuring manure, the price of labor, &c. &c. are items of importance in determining between grain and grass cultivation. In the neighborhood of large towns, where manure can be had cheap and in any quantity, and the soil is suited to arable cultivation, Indian corn and other grain may be raised and sent to market to greater profit than in the interior, because the transport is not so serious an item of charge. Besides, it may be said of farms situated at some distance from populous places, without cattle you will have no manure, and without manure, no grain. But in the neighborhood of a large town, manure, and of course grain, may be had without cattle.

In Great Britain, according to Sir John Sinclair, the grain cultivation is carried to an extreme. He says, "It cannot be doubted that if one-fourth part of the land, which at present is sown with corn [grain] were properly laid down in grass, for the purpose of feeding stock, it would be of the greatest benefit both to the farmer and the public, as the other three-fourths would be better manured, more easily cultivated, and would produce as much for consumption as the whole, now does."—*Ed. N. E. Farmer.*

to be considered as arable, and been well fitted apart for the exclusive support of live stock. This practice has been one of the chief sources of the depression of our agriculture, and has served too long to perpetuate distress, embarrassment and poverty. The very reverse of this favorite opinion will, I apprehend, turn out to be correct; namely, that this Province is much better calculated for agricultural than for pastoral purposes.

In corroboration of this novel statement, it may be stated that a cwt. of oatmeal or flour can be raised at less expense in Nova Scotia than in Britain. To pave the way for our concurrence in this position, we may boldly refer to the comparative fertility of the two countries; and we can be justified on the best documentary evidence, if not to exalt our own above England, at least to set it on a footing of equality. Our acre will yield as much as theirs, if cultivated with like skill and capital. Should this be granted, the point at issue is no longer doubtful; because the burdens affecting land are here light and trivial compared with the taxation which the English farmers must bear. Tithes, poor rates, direct and indirect taxes, jointly contribute to swell the charge of production and add to the first cost of their bread corn. In all these points of view ours have confessedly the advantage; and are only inferior to them in a higher rate of wages.

But if the balance be in our favor with respect to the raising of meal and flour, it inclines against us with regard to the cost of rearing beef and mutton. The British farmer can bring these latter to market at a lower rate than the Nova Scotian, and this he accomplishes by the mildness of the winter and the nature of the feed. The sheep both in Scotland, England, and Ireland, are allowed to range their native hills throughout the whole year, and to pick up a subsistence from the decayed herbage, heath, and wild plants, which are but seldom covered with snow. The cattle again are fed in the foldyard for not more than two or three months, and in the more temperate districts for less than the half of that time. The straw of white crops with a moderate supply of turnips is the species of fodder which supports them, and its principal value is always estimated by its conversion into manure. A heifer is usually taken for wintering at the rate of 20s.—a sum which here would not pay above the third of the hay which must be consumed during the long and dreary six months when our cattle must of necessity be shut up. If these data be correct, it would appear that the English farmer raises his meal and flour at a greater, and his meat at a less expense, than these can be respectively produced in Nova Scotia; and yet in order to reimburse his outlay, he requires a difference between them of double the price; whereas our farmer during the last year has been supplying the butcher, weight for weight, either at or below what he could obtain, for his bread corn. That region can never be destined by nature for pasturage, where the domesticated animal must be fed by hand for more than half of the year; and where, on account of the extraordinary quantity of hay needed, the very best lands must be devoted to their use. It is this capital mistake which has so long borne down the agricultural interest, and led our landholders to pursue that branch of rural economy, where

they will ever be attended with indigence and pecuniary embarrassment. The cost of rearing a pound of meat will always in this country be somewhat more than the half of producing the same weight of oatmeal and flour; and therefore the natural relation subsisting between the prices should be adjusted at a higher level correspondent to the capabilities of the climate.

If France and England, notwithstanding the temperateness of their winters and their superabundance of straw for fodder, require that meat be double the price of flour, it is perspicuously manifest that in Nova Scotia, beef, from the expense and trouble of raising it, should be elevated a little above that standard. What that proportion of rise should be is no easy matter to determine; yet the principle itself on which it depends is neither hidden nor uncontroversial. In all the branches of a free trade, where labor and capital are not fettered by any impolitic or arbitrary restriction, they ought to have the same profit, and they will tend to this equality whenever men understand their own interest clearly. The remuneration derivable from an hundred pounds in live stock, should be equivalent to what the same amount yields in tillage; and therefore the prices of butcher-meat and bread should here assume a relation resulting from the greater or less expense of production.

These views strongly inculcate a lesson of practical utility that deserves to be earnestly taught and deeply studied. Our countrymen have persevered in the hay husbandry to the obvious disadvantage of themselves and of the community; and it is now high time that they be cured of the strange infatuation. They have been selling beef at a price much below its fair and natural level, and consequently drawing from their lands a return less by the one half than these could have yielded under arable management.

And I believe that our farmers are beginning to open their eyes to their true interests. The rage for grazing is gone by, and better and juster sentiments are succeeding in its room. Our peasantry are a shrewd and intelligent race, and will not fail, in the long run, to discover the best and most advantageous methods of employing their labor and capital. Their own calm reflections and their mutual reasonings are gradually removing the prejudices which clouded their understandings, and are enabling them to descry the respective benefits of pasturage and tillage. Since the origin of this Society, there has been a progressive increase of arable cultivation, and from present appearances it is not yet on the wane. Very considerable quantities of country flour have been weekly, I had almost said daily brought to Halifax during the last three months, and this event marks a new era in the records of our agriculture.

It will be recollected that when I had the honor of last addressing you in this place, I then stated, "that the prizes which had been offered for bringing a supply of flour to Halifax had baffled expectation, that three parcels only, amounting to 2 tons, 16 cwt. had come from the interior, and that it would be vain to continue those prizes, because our husbandry seemed to have reached that point in which it could about meet the internal consumption," "but had nothing to spare for the capital."—We are now advanced a step further; and with-

out the least encouragement from the Legislature, native flour has come in all this winter as regularly as the other articles of agricultural produce. What the whole quantity may have been, it is impossible to ascertain; we know, however, that it has been bought up as fast as it appeared, by merchants, bakers, and householders; and the supply is not yet stopped, but continues flowing with a steady current.

From some inquiries which I have made among the principal purchasers, there is evidence that about forty tons* have passed into their hands, besides the small parcels which have gone to housekeepers, and which could not be traced with any accuracy, but may be safely reckoned at ten more.

This town too is not the only place where native flour has been exposed for sale. Pictou is now trading in it to a great extent; and oatmeal and flour are received there by the merchants in payment of debts, and in the exchange of commodities. Even Liverpool, according to a late letter from the Secretary of its Agricultural Society, had gotten fifty barrels by the 22d January last, from Brookfield and Caledonia, where three years ago the settlers began to cut down the forest.

But though we have no means of reckoning the sum total of all the domestic flour raised by our farmers above their own immediate consumption, we can refer, with the view of casting some light on this subject, to the books of the Custom House, and learn whether our imports on the whole have been diminished in 1822. When we appeal to this testimony, the information is of a most gratifying and exhilarating description. In every article of agricultural produce there has been a signal reduction of imports during the last year, and in oats and in barley we have obtained an export for the first time.

At the desire of his Excellency the Governor, an account of the Imports and Exports for the years 1818 and 1819 has been obtained from the Custom House in order to ascertain the agricultural state of the province before the existence of the Provincial Agricultural Society; but it is unnecessary minutely to go into all these particulars, as it would too much complicate the details now presented, to carry the comparison so far back. This Society began its operations in the spring of 1819, and can be supposed to have influenced but slightly the agricultural produce of that season. I shall just observe, that although the imports of both these years fall short of those of the succeeding, they swell greatly beyond those of 1822. In the first of those years we imported 51,095

* Since the date of this Report, March 12th, a regular weekly supply has continued to come in from the country, and the whole quantity, now April 1st, cannot be less than 80 tons, as one individual, Mr. Wm. Macara, has brought from his farm several tons. Eighty tons flour are equal to 914 barrels; and these being added to the imported stock on hand will, it is believed, meet the consumption of the town till the navigation of the St. Lawrence opens again the Canadian market in May. But if our agricultural improvement were to be calculated solely by the above quantity, we would run into an egregious blunder; for it is matter of observation and of fact that the sleds and wagons returning from the town are not, as formerly, loaded with foreign flour; and therefore our tillage is now equal to the wants of the country, and has in part arrested that destructive trade carried on by our farmers since the first settlement of Halifax.

barrels and 118½ half barrels of flour; and in 1819 the further amount of 50,716 bbls. 2043 half bbls. and 350 bags, with bread, wheat, Indian corn and meal in proportion.

These statements should suffice to banish all despondence about our future prospects, and to inspire an unhesitating confidence in the capabilities of a country, which has repaid our efforts with so much liberality. They should also have a due effect on the guardians of the public expenditure,—inasmuch as undoubted proofs are furnished that the former grants have neither been unprofitable nor misapplied, and that every shilling taken from the treasury has been a mean of lessening our imports, and of thus saving our circulating medium; to say nothing of the great addition made to the provincial wealth. To sum up the whole, I am inclined to believe, that in the history of domestic improvement, no parallel can be found to the prodigious advances we have made in the short space of four years; and that if the mechanism now in motion, by which this province is ascending so fast to independence in corn, be neither broken down nor materially clogged in its operations, we shall soon rise superior to all our difficulties.

JOHN YOUNG, *Secretary.*

Halifax, March 12th, 1823.

FOR THE NEW ENGLAND FARMER.

CATTLE SHEDS.

J. H. Farm, West Newbury, May 27.

MR. EDITOR,

I wish through your valuable paper to request a description of the best possible way of making a Cow House—as to the width; depth of the trench; space between each cow; whether to have partitions or not; how to fasten them; whether a rack is necessary or not; and every thing that is convenient or useful. I have for sometime calculated on making an alteration, and have taken pains to ascertain the best way, and thought I had a perfect plan; but unfortunately for my plan, I saw one possessing more conveniences the other day, which induced me to think if I made the inquiry through your paper, some of your many respectable patrons would be willing to give a description of those on their farms; or if theirs were in any way defective, to alter their descriptions to their present views, which will much oblige yours, &c.

ARATOR.

FOR THE NEW ENGLAND FARMER.

REMEDY AGAINST THE HESSIAN FLY.

MR. EDITOR,

SIR—Wheat is so important an article of food that every farmer should make all possible improvement in its cultivation. It is like the other precious things of this world, the more valuable, the more difficult to obtain. Many of our farmers in this quarter begin to despair of success in this crop for the present, in consequence of the ravages of the Hessian Fly the last season, which, they say will have its course and destroy our Wheat for several years, after which we may again venture to sow it. A neighbor of mine has lately informed me of a remedy, or rather a preventive to the effects of this destroyer, which to me is new, and may be so to others, and I therefore hasten to communicate it to you, knowing that if it be worthy

of notice you will give it publicity, and not otherwise.

My neighbor states that his brother, in an adjoining county, sowed a field of wheat the last season, which came up well and grew rapidly for a short time, when he discovered that the fly had laid claim to the whole field by depositing its eggs in the first joint of every stalk. Immediately on this he turned his sheep into the field, who soon cropped the whole to the ground, and after they were removed the wheat again grew rapidly, and from this field he harvested a remarkable fine crop of good wheat.

I leave this simple fact to the consideration of yourself and your subscribers.

Yours, respectfully,

B.

Buckfield, Maine, May 20, 1823.

From the Massachusetts Agricultural Repository.

I do not expect to impart any thing new to the intelligent farmers of our country, but still as the crop of hay must ever be an important subject to the cultivator; and as the success of the following experiment was very gratifying, I am induced to submit it for publication. If it induces others to drain their low lands, and make them more productive, I shall reap much satisfaction therefrom.

I have on my farm a flat piece of low land, of about twenty acres. This has been to me, and to my predecessors of more than half a century, of less value than has been expended in mowing the alder and other bushes, which had overrun the ground. The difficulty of draining, for want of a sufficient descent, had discouraged any thing being done to effect any improvement. Although I had occasionally seen some instances of low land thrown into beds, by intersecting ditches, yet the universal practice of this mode of taking off the water, and producing forward vegetation on the banks of the St. Lawrence, and its apparent good effect, induced me to make the experiment. I accordingly, in a dry time, in the fall of the year 1814, broke up about four acres of this land. The soil was of a black meadow mould. The under stratum sand and clay mixed, making a hard pan. As the furrows turned over very smooth, except in some places where it was strong, the land was left till the next year, 1815. When it became sufficiently dry, the sod was found more rotted than was expected. About twelve bucks of manure to the acre were carted on and spread, and the harrow was, at different times, passed over the ground during the summer and fall of the year. The usual wetness of the soil had discouraged the expectation of raising any crop from the ground. In the latter part of the fall a large central ditch was opened through the whole piece, corresponding to the descent therefrom. Furrows were then ploughed at suitable distances, and the ground from them thrown upon the beds, which were made about 20 feet by 60. This admitted a more early ploughing in the summer of 1816. It was then laid down with herd's grass and clover seed. About half a bushel of the former, and four pounds of the latter to an acre. A few oats were sown therewith, which gave a common crop, and were cut for fodder. As the land had not been highly manured, and the experiment promised very favorably after taking off the oats, a coat of manure was put on, of about 12 bucks to the acre; and, it being an

object to prevent the evaporation of the manure (as this was done early in the dry season) as well as to have the land left smooth, and descending towards the ditches, they were ploughed anew, and the earth in them thrown upon the beds. In the spring of 1817, the grass made an appearance of most exuberant fertility; the herds' grass became very thick, and, before mowing, measured, much of it, over five feet. The clover was well set.

Several of my neighbors, thinking the crop greater than they had seen, wished to have the produce ascertained. I accordingly had three parts, or pieces, in no respect differing essentially, if at all, from the rest, measured by a careful surveyor, Major C. Adams, of Needham, and the crop therefrom was sent to the town's scale and weighed. The hay was perfectly well made, and the result was 16,152 square feet, equal to 59½ rods, produced 1 ton, 10 hundred, and 3 quarters of hay, equal to 4 tons, 2 hundred, 3 quarters, and 2 pounds to the acre.

I am, Sir, with much respect, yours, &c.

JOHN WELLES.

From the American Farmer.

TO TAKE HONEY.

MR. SKINNER,

There is a gentleman in the lower part of your native county, who knows much better how to take honey from bees than the German mentioned in your paper (No. 48, vol. 4,*) and with less expense than Blake's patent hives. I was once an eye-witness of his taking it, and partook of the nice dainty. He has no need of cap, mask or gloves—so far from shielding himself, he rolls his sleeves up above his elbows, and goes at it when the sun is at its meridian, knowing that the bees are all at that time from home. The brighter the sun the better, and the month of August is his honey harvest.—When he goes, as before mentioned, at mid-day, he takes off the top of the hives and takes out as much honey as he thinks proper; nails on the top and goes on to another, and another, until he is done. The honey is as nice and white as it can be. The bees will immediately fill up the vacant place, and the next year you have nice new honey again, as the gentleman informed me.

A LOVER OF HONEY.

May 11th, 1823.

* See N. E. Farmer, pp. 322 and 331.

WHEAT HARVEST.—Our accounts are various, but generally very unpromising. On both the south and north sides of the James River, for a considerable distance above this city, and for 20 miles below it, there has been much injury already done—at some places the fly alone, at others the chinch bug, and in some fields both insects are at work. We have heard that the bug has already attacked even some of the oats, and some spots of the young corn. The rich lands, even in this district, however, may produce good crops of wheat. On the lower parts of Pamunkey river and on to the Rappahannock, the crops as yet appear very fine. The chinch bug is certainly this year in extraordinary numbers—for within the last week many have been seen flying in our city, an object of curiosity rather than of dread. It is a small speckled fly, that derives its name from its smell when mashed between the fingers.—*Richmond Enquirer.*

From the London Farmers' Journal.

On feeding Sheep with Mangel Wurtzel.

Heredfordshire, Jan. 25, 1822.

SIR—It is rather unusual for a man to write on a subject which he professes to be totally ignorant of; and in addition to this, your correspondent Mr. Thorpe, in his letter of January 3d, seems disposed to doubt the veracity of one who has planted and used mangel wurtzel for several years past; however, it is done openly, and in an inoffensive manner, therefore I freely forgive him.

I have neither leisure nor inclination to enter into a controversy with Mr. T. but I deem it necessary to answer his letter of the 3d inst. and to repeat, for his satisfaction, if he pleases, that "I weighed five wether sheep, and put them into a barn, as stated in my letter of the 12th ult. and in that situation they were regularly supplied with 25 lbs. of mangel wurtzel, (less than three roots) and five lbs. of good hay during every 24 hours, for each sheep, and this continued for five successive weeks, at the expiration of which time they were weighed out, and had gained upon an average eight lbs. per quarter." It seems to strike Mr. T. with wonder, that animals should gain so much more than he states they would gain, when at grass in the month of May and the following months; but when it is considered that the sheep were penned up in a warm barn, and without the possibility of exercise, they were much on a footing with pigs in a sty, fed on barley meal and pease, or like unto turkeys, if crammed with the best Carolina rice. It is not at all extraordinary for animals having an aptitude to fatten, to make still greater progress when fed on such a sweet succulent root as mangel wurtzel, corrected with a little good hay. Mr. T. pleads his being a novice in the cultivation and general knowledge of the root; therefore, under such circumstances, it may be difficult for any one to convince him of its extraordinary properties; it is possessed of greater specific gravity than that valuable root, the Swede turnip. Perhaps Mr. T. is unacquainted with the fact, that during the reign of that enterprising man, Bonaparte, he passed a law, that all farmers in Flanders should set apart a portion of their farms for the cultivation of this root, for the purpose of making sugar, and which experiment more than equalled his most sanguine expectations. Good sugar was produced at one shilling per pound, when at the same time West India sugar was selling in France at five shillings per pound.* This circumstance will give Mr. T. some idea of the nutritious quality of the mangel wurtzel. With regard to the manner of cultivation, I must leave that to the able hand of your correspondent Mr. Addams, who has, I think, promised to give it to us in detail; but as the method I pursued last season may be additional information, I will briefly state it.—The land (a sandy soil) was prepared as for Swede turnips, good rotten dung placed in drills 18 inches distance in the rows, and my plants were full 12 inches apart; the seeds were planted the last week in April, not exceeding two inches under the surface, with a small planting stick, taking care not to put more than one pod (which contains more than one seed) in each

hole; the plants make their appearance in about 21 days; and when about the size of cabbage plants, care was taken that only one plant remained in a hole; they were kept clean by a single horse hoe in the rows, and hand weeding between the plants; after having had immense quantities of the large leaves taken from them during the last four months they were in the ground, they were pulled up about the end of November, (but this greatly depends on the season) and placed in heaps in the open ground and covered with straw and earth similar to potatoes; some I placed in an out-house, but I think it matters not which. What remained in the month of April following, were as fresh as when taken up; but what adds greatly to the value of this root is, that it is taken up in time to put in wheat, and the land is in very high tilth to receive it. It gives me pleasure, Mr. Editor, to be the means of drawing forth observations on the cultivation and use of a root that promises to be of incalculable value to the United Kingdom, provided we have equal protection with the trading and commercial interests.

I remain your well wisher.

From the American Farmer.

ON THE VARIOUS WAYS OF PREPARING AND EMPLOYING INDIAN CORN.

There are many things the rich have no need to think of, which would be of infinite advantage to the poor, if they had the knowledge necessary to turn that product of their labor they have most in their power, to their own comfort. You may perhaps smile when you perceive this preamble is to usher into notice the virtues of *Indian Corn*. I will allow you to do so, if you can find in my enumeration one use to which I put that valuable grain, worthy of being more generally known. In order to swell the list, I mention some of the purposes for which it is used, that are known to every one, before I enter into the detail of preparing a dish which I consider the best, healthiest, and most palatable food we have. I will begin with it before the seed is perfectly formed; it can then be made, if properly done, a *fine pickle*. We all know how delicious *roasting ears* are; when fit for this use it will make a superior *starch*; if scalded and dried you may have *roasting ears* in the middle of winter. When the grain is hardened, you have food for all the domestic animals in the shocks, tops, &c. The leaves of the shock or husk, by slitting them finely, make excellent *matrasses* or under beds. The flour or meal of the grain is the most wholesome we use; I need only mention a few of the ways in which it is managed in this state, for I should never have done were I only to give you the receipts for making the various kinds of corn bread common in this part of the country. A favorite way of making corn bread with us, is to make a batter with meal, milk, eggs, and a little shortning,* about the consistence of that for pound cake, which it resembles in appearance when baked in tins commonly used for that purpose. In making light bread by mixing the wheat flour and yeast with mush, we consider it adds much to the sweetness and wholesomeness of the bread; we likewise in all grid-dle cakes, mix meal with wheat flour as tending

to make them lighter, with fewer eggs than they would take with wheat flour alone—in short, we use corn meal on all occasions either with or without wheat flour—not because we have not flour sufficient, but because we prefer meal. I can assure my fair countrywomen they need not apply to quacks or perfumers, or (I forget what they call them,) I mean those foreigners who vend poisons, under the pretence of rendering those that use them more beautiful; and recommend them, because a few worn out old women have made out, by attending to nothing else but the application of various arts to hide their deformity for a short time, who having no beauty to endanger, cannot fear the consequences. I say those who do believe in the virtues of cosmetics will find my favorite corn meal superior to all the washes, de Maientenon, &c. &c. It will render the skin smooth, transparent and white—and withal it is perfectly safe. Only let them try it instead of going to one of those vendors aforesaid, and spending two or three dollars for a nostrum, which at best will only be of transitory benefit, leaving a lasting ill effect; let them put over the fire a pint of water, when it boils stir in as much fine corn meal as will make it the consistence of paste—when cooling they may add a spoon full of honey and a little rose water, though the latter articles are not necessary—let them use this paste, or as I vulgarly call it, *mush*, instead of soap every time they perform their morning and evening ablutions, or, in other words, wash themselves. I venture to affirm their complexions will derive more advantage from the application of this paste, than any of those washes which they pay so high for.

I come now to the preparation of the grain, which I believe is not as generally known as it ought to be, considering its excellence. It is what we call *lyed hommony*; we likewise have the best *hommony* and small-hommony, both of which are common, are fine dishes, and superior to rice, when properly managed; but the *lyed hommony* is preferred by every one who is accustomed to it, as being more wholesome and more palatable. It is prepared by boiling the white field corn in ashes and water, until the husk or skin of the grain is loosened, which will be the case in a few minutes, and it is necessary to pay attention that it does not remain too long in the ashes, as it will by that means taste of the lye; so soon as the husk is loosened, it must be washed and rubbed through the hands in cold water until the grain is cleansed from the ashes and skin; it may then be dried to make use of at any time, or boiled immediately if wanted. When ready to be cooked for the table, it must be scalded and put over to boil in plenty of water, observing always to keep sufficient hot water ready to add to it as the first boils away. The grain bursts open into a white ball and becomes soft when sufficiently done. This is the manner we boil it to eat with milk or cream, either warm or cold. It is also used in this country by the Indians and Creole boatmen, who prefer it to any thing else in a soup, by putting the corn over with a piece of beef or pork, leaving the water in it which makes the soup—in the other case the grain is taken out of the water. A yankee acquaintance of mine who knew nothing of hommony, has become so fond of this dish as to declare *lyed hommony* and milk to be preferable

* See that entertaining work Radcliffe's Agriculture of Flanders.

* A word in Domestic Cookery which implies that butter, lard, or oil, may be used.

the best sweet meats and cream that can be had, and I doubt not some there are who would think the same, were they equally to make the trial. I have been induced to write the preceding.

A MISSOURI FARMER'S WIFE.

A GREAT CONVENIENCE FOR GOOD HOUSEWIVES.

Daniel Richardson, an ingenious and respectable mechanic, has brought to great perfection the REFRIGERATOR, or Portable Ice House. Good housewives can only calculate the many useful and economical purposes to which this contrivance may be applied. The improvements made by Mr. Richardson, have so far perfected the refrigerator, that it may now be fully relied upon for keeping butter, milk, meat, eggs, fruit, vegetables, or any article of household consumption, perfectly cool, fresh and pure. All the above named articles may be preserved in these machines as long as desirable, perfectly sweet, clean and free from taint. The Refrigerator may be deposited in the cellar, in the garret, in any part of the house, or even in the open air, without any perceptible injury to the contents; it does not require to be replenished with ice, more than once in three days, during the hottest season; and it is attended with another advantage—complete security against every species of vermin, to which it is totally inaccessible, and in winter it will keep any article from freezing, that is deposited in it. Every family ought to have one—the price is from \$15 to \$25, according to size—and the manufactory is in East street, Baltimore.—*ibid.*

NEW ENGLAND FARMER.

SATURDAY, MAY 31, 1823.

The Farmer's and Gardener's Remembrancer.

JUNE.

FIELD CULTURE OF CABBAGES.—Mr. A. Young has observed that Cabbages “flourish to very great profit on all good soils, and have the particular property to enable the farmers of clays and wet loams, to winter more cattle than those of lighter lands can effect, by means of that excellent root, the turnip. The great evil of clay farms used to be the want of green winter food, which confined their stocks to hay alone, and consequently prevented their reaping those extended articles of profit that arise from numerous heads of cattle; and, besides the immediate benefit from the cattle, they lost also the opportunity of raising large quantities of dung, which can never be effected so well as by keeping cattle. But all these evils are by the cabbage culture remedied.” There is another advantage attending cabbages which make them highly eligible on all farms, which is their lasting for sheep food longer in the spring. Ruta baga, together with some sorts of cabbages, are in perfection in April, and last even to the latter part of May, the most pinching period of the year. Turnips, it is said, will not last so long.

The author of “Practical Agriculture” advises, that “as the roots of the plants run deep and stand in need of a large portion of nourishment, the soil should be well loosened to a good depth. As near as possible to the time of planting, the ground should be well harrowed over, and a suitable proportion of good stable manure applied, as from fifteen to twenty-three horse cart loads to the acre; or where composts are

made use of, from twenty to thirty.” We have been told by a gentleman, who says he speaks from experience, that ashes, lime, and plaster of paris, mixed with stable or other manure, and spread on land designed for cabbages, will prevent a disease in the plant called the fumble foot, in which the roots swell and become knobby, and the plant attains but a small and imperfect growth. Cabbages are said to grow well in drained swamps, without any manure. Hog manure is recommended by Dr. Deane, but we have been informed that it is apt to harbor insects and cause the fumble foot, unless it is mixed with lime or ashes.

Some drop the seeds in the hills where the cabbages are to grow, by which means they escape the trouble of transplanting, a process in which they are in some measure stunted.—Mr. Bordley relates an experiment, in which he “compared cabbages transplanted with others not once moved. The unmoved grew, and were better than the moved.” Dr. Deane, on the contrary, declares, “I have tried both ways, and on the whole I prefer transplanting.” Mr. Cobbett says, that “to have fine cabbages of any sort, they must be twice transplanted. First they should be taken from the seed bed, (where they have been sown in beds near to each other) and put out into fresh dug well broken ground, at six inches apart every way. This is called *pricking out*. By standing here about fifteen or twenty days, they get straight, and stand strong, erect, and have a strait and stout stem. Out of this plantation they come *all of a size*; the roots of all are in the same state, and they strike quicker into the ground where they stand for a crop.” The expense and trouble of this operation (even if there are no other objections to it) will probably prevent its general adoption in the United States. Rees’ Cyclopaedia informs that “another practice adopted by the late Mr. Bakewell, and since employed by other cultivators, by which the inconvenience of waiting for a suitable moist time for setting out the plants, and the danger of their not succeeding under other circumstances, are avoided, is that of drilling the seed in where the plants are to remain at the proper seasons, as April, May or June, and the following month.” We do not believe there would exist any necessity for transplanting cabbages, in order to make the stems “straight and stout,” according to Mr. Cobbett’s directions, if the plants were not originally sown too thick, or were properly thinned at an early period of their growth. An English writer says, “Much injury frequently arises to young cabbage plants from the seed being sown too thick; care should therefore be taken to have them properly thinned out whenever they come up in too thick a manner.”—Probably if the plants were sown in the hills where they are intended to grow for a crop, and thinned out in due season, they would grow as straight and as stout as if they had been several times transplanted.

Mr. Francis Winship, of Brighton, Mass. in the year 1820, raised thirty-two tons and two hundred weight of cabbages from one acre of land. The following is his account of the mode of its culture:—“The land on which the cabbages grew, is the same on which the ploughing match took place in the year 1817, was cultivated with corn and potatoes in the year 1818, and with potatoes in the year 1819.—

This last spring it was ploughed once. In June it was ploughed again, and struck into furrows from $2\frac{1}{2}$ to 3 feet apart. I then dropped leached ashes into the furrows, one shovel full making 3 or 4 hills 15 or 20 inches apart; it was then mixed with the loam and covered; a boy followed with the seed, and penetrated the hill with his thumb and finger, and deposited three or four seeds. This was performed the latter part of June. They were afterwards weeded and thinned as convenience suited, probably equal to three dressings.”* This would have been called a large crop in England, where twenty-five tons to an acre is considered an average crop.

Although it might be as well, perhaps, to sow the seeds of cabbages where the plants are expected to obtain their growth, yet as transplanting them is most customary, and in some cases most expedient, it may not be amiss to give some observations on this mode of cultivating this vegetable. Mr. Cobbett has the following directions for conducting this process:

“Dig the plants up, that is, loosen the ground under them with a spade, to prevent their being stripped too much of their roots. The setting stick should be the upper part of a spade or shovel handle. The eye of the spade is the handle of the stick. From the bottom of the eye to the point of the stick should be about nine inches in length. The stick should not be tapering, but nearly of equal thickness all the way down to within an inch and an half of the point, where it must be tapered off to the point. If the wood be cut away all round to the thickness of a dollar, and iron put round in its stead, it makes a very complete tool. The iron becomes bright, and the earth does not adhere to it, as it does to wood. Having the plant in one hand, and the stick in the other, make a hole suitable to the root that it is to receive. Put in the root in such way as that the earth, when pressed in, will be on a level with the butt-ends of the lower, or outward leaves of the plant. Let the plant be rather higher than lower than this; for care must be taken not to put the plant so low as for the earth to fall, or be washed into the heart of the plant, nor even into the inside of the bottom leaves. The stem of a cabbage, and stems of all the cabbage kind, send out roots from all the parts of them that are put beneath the surface of the ground. It is good, therefore, to plant as deep as you can without injury to the leaves. The next consideration is the *fastening of the plant in the ground*. The hole is made deeper than the length of the root, but the root should not be bent at the point if it can be avoided. Then, while one hand holds the plant, with its root in the hole, the other hand applies the setting stick to the earth on one side of the hole, the stick being held in such a way as to form a sharp triangle with the plant. Then pushing the stick down so that its point go a little deeper than the point of the root, and giving it a little twist, it presses the earth against the point or bottom of the root. And thus all is safe, and the plant is sure to grow. The general, and almost universal fault is, that the planter, when he has put the root into the hole, draws the earth up against the upper part of the root, and if he press pretty well there, he thinks that the plant is well done. But it is the point of the root against

* Mass. Agricultural Repository, vol. vi, p. 257.

which the earth ought to be pressed, for there the fibres are; and if they do not *touch the earth closely*, the plant will not thrive. To know whether you have fastened the plant well in the ground, take the tip of one of the leaves of the plant between your finger and thumb; give a pull; if the plant resist the pull so far as for the bit of leaf to come away, the plant is properly fastened in the ground; but, if the pull bring up the plant, then you may be sure that the planting is not well done. The point of the stick ought to twist and press the earth up close to the *point of the root*; so that there be no hollow there. Pressing the earth against the stem of the plant is of little use.* The same writer directs to "choose a dry time for your transplanting, for this reason; if your plants are put into wet ground, the setting stick squeezes the earth up against the earth in a mortar like state; the sun comes and bakes this mortar into a hard glazed clod; the hole also, made with the stick is smooth upon its sides, and presents an impenetrable substance to the roots and fibres of the plant, and thus the vegetation is greatly checked; but when plants are set in dry earth the reverse of all this is true, and the fresh earth will supply moisture under any degree of drought."

In procuring seed for raising young cabbage plants, great care should be taken that it be obtained from the most perfect plants of the different kinds, and such as have seeded without any other variety of the same tribe blowing near them. The plants intended for seed should therefore be set out by themselves, at a distance from others. New seed should be preferred, as it vegetates quicker, and is more to be depended on.

Cabbage plants are very liable to be attacked by insects. The grub, or black worm, in the night, eats off the stalks just above the ground, and buries itself in the soil as soon as the sun rises. Dr. Deane says a little circle of lime, or rock-weed round the plant, will preserve them, and recommends digging for the worm near the place which shews the marks of its ravages, and destroying it. Some recommend whipping the plant with green elder bushes. Scalding the hills, and then enclosing them with boards, bark or shingles, would be an effectual but a troublesome mode of securing the plants. The Economical Journal of France gives the following method, which it states is infallible, to guard not only against caterpillars, but all other insects which infest cabbages or other vegetables. "Sow with hemp all the borders of the ground where the cabbage is planted; and, although the neighborhood be infested with caterpillars, the space enclosed by the hemp will be perfectly free, and not one of the vermin will approach it." A gentleman told us that he preserved his cabbage plants perfectly free from worms, bugs and flies, by dibbling small holes in the ground near the plants and filling the holes with water which had been poured boiling hot on elder leaves and suffered to stand till cool. If this is always effectual, nothing cheaper or easier of application can be devised. The following is recommended by a foreign journal. "Take a pound and three quarters of soap, the same quantity of flowers of sulphur, two pounds of puff balls, and fifteen gallons of water. When the whole has been

well mixed, by the aid of a gentle heat, sprinkle the insects with the liquor, and it will instantly kill them. Salt, sowed over the ground in moderate quantities, will destroy insects and prove beneficial to vegetation. Too much salt will injure vegetation and render the ground barren for several seasons, and so will *too great a quantity* of dung, or almost any other manure. Sir John Sinclair says that salt in small quantities is useful as a preventive against insects; and it was ascertained by a series of experiments by the Rev. Dr. Cartwright, detailed in communications to the Board of Agriculture, that a mixture of salt and soot was preferable to any other manure. Eight bushels to an acre has been applied in England on sour rushy land with a beneficial effect. One half that quantity would probably be sufficient in most cases, and we have no doubt would prove an effectual antidote against insects of all kinds.

CLEANSE YOUR CELLARS.—If you wish to live out half your days, be careful not to be in the habit of breathing the gasses of putrefaction, vegetable or animal. We do not pretend to say whether a parcel of rotten and rotting potatoes, cabbages, turnips, and other vegetables, decaying in a cellar will produce what is called *yellow fever* or not. But a kind of fever may be manufactured from vegetable or animal putrefaction, which may prove as fatal, though perhaps not quite so rapid in its progress, as the genuine plague of the West Indies, or the Levant. Beef brine, or pork brine, suffered to stand too long, becomes very offensive, and whatever offends the sense of smelling is injurious to the health. We have been assured by physicians of eminence, that they have every reason for believing that bilious or typhus fevers of a malignant and fatal kind, have originated from sources of this description. Dead rats or mice, in a wall or ceiling, are detrimental to health, as well as offensive. We very much doubt whether any thing effectual can be done to counteract the effects of their effluvia, unless the substances themselves can be come at, and removed. The following has been recommended as an effectual mode of freeing a room from the offensive smell occasioned by a dead rat or other animal:—"Take a small earthen vessel or gallipot, into which put a little salt petre, more or less according to the size of the room; pour upon this a sufficient quantity of sulphuric acid [oil of vitriol] so as completely to saturate it, and shut the room up closely for an hour, in which time it will be found to be perfectly free from the offensive smell."

Dr. Thomas Cooper gives the following directions for purifying apartments of noxious air: "Some common spirit of salt may be kept in one bottle, and some manganese in another; the manganese may be strewed on a plate or large saucer, and this may be placed over boiling water, a chafing dish of coals, or a small lamp; the spirit of salt may be poured on the manganese, when the chlorine gas will be extricated by the heat. It will be prudent to go out of the room and avoid the fumes, which bring on very obstinate coughing. After a short time, the room may be ventilated, and then washed, and white washed."

COL. JAQUES' BREED OF CATTLE.

In our paper of the 19th ult. p. 302, we took some notice of the *improved breed of cattle*, own-

ed by Col. Jaques, of Charlestown, and the sale of a bull, which formerly belonged to that gentleman, to the Montreal Agricultural Society for the sum of \$500. The Canadian Courant of the 3d inst. has copied the notice alluded to and accompanied its insertion with the following remarks, which shew that the introduction of that species of stock into Canada is considered as an acquisition to the Province.

"The attention which is paid to select the best breed of stock, wherever they can be found will render very great advantage to the country; it is true neat cattle are plentiful, but they are very light, and a small ox requires the same care to raise and fat as a large one, but cannot yield the same profit. Therefore it is but justice to remark that the efforts of our Agricultural Society to import so fine a Bull of the short-horn or Teeswater stock, with a view to improve our breed of cattle, deserve great commendation. Time has demonstrated that the farmers must turn their attention to raising of good stock, and give up the idea of a continued aration. If a view is taken of the article imported into this Province, which can be furnished by the farmers, it will be perceived that the most profitable part of farming is engrossed by the Americans, the duration of which depends on our own exertions."

Since writing the above, we have seen an article in the same paper of the 10th inst. setting forth the good qualities of this breed of cattle, from which we extract the following:

"This animal has by far exceeded in appearance, and apparently good qualities, any expectation of them that could have been anticipated and as it may afford some gratification to those who feel an interest in the object contemplated by his introduction into the country, to be made acquainted with his pedigree, they offer the following as a statement of it, which they believe, from the most particular inquiry, to be perfectly correct.

"ECLIPSE was sired by the full blooded English bull Cœlebs, the property of Samuel Jaques Esq. and is out of the English cow Flora, both of which were imported from England, when young, by Cornelius Coolidge, Esq. in 1818.

Eclipse was calved 3d July, 1821; he is the third calf from Flora, and obtained the first premium from the Massachusetts Agricultural Society, at the Brighton Show, in October last, then only 15 months old, and weighed 1243 lbs.

Cœlebs is a direct descendant from the first blood in England; his grandsire was the famous bull "Comet," that was sold at the public sale of Charles Collings, Esq. at Ketton, in 1810, six years old, for 1000 guineas; his sire the "Hercules," from a first rate Holderness Cow* of Mr. Mason's, of Darlington; his grandame from Sir H. Vane's stock; his dame got by the noted bull Wellington, the property of Mr. Collings. The breed is remarkable for its mildness of temper, and possesses the three most desirable qualities, viz. in affording the greatest quantity of Beef, Tallow and Milk.

*The Holderness breed is celebrated for giving a great quantity of Milk, and the cows generally give from 24 to 36 quarts per day.—Rees' Cyclopaedia.

Col. Jaques has still on hand, for sale or to let, at his residence in Charlestown, three half-blooded bulls, one year old this month, from first rate native cows, sired by Cœlebs.

* American Gardener, par. 261.

LONG WOOLLED SHEEP.

Four fine ewe Sheep, of the long woolled breed, milar to the Bakewell, Dishley, or Leicester breed, have lately been imported from the Netherlands, by Capt. David Low, of Boston, and are now owned by Col. Jaques, of Charlestown. Sheep of this kind are highly valued in Europe for their heavy carcasses for mutton, and the length and excellent qualities of their fleeces, which are absolutely indispensable for the production of worsted manufactures. They are of the same sort with those imported by the Hon. Thomas H. Perkins, for which that gentleman received a premium at the last Cattle Show at Brighton.

HESSIAN FLY.

The remedy for the Hessian Fly, suggested by our correspondent B, page 347, of this day's paper, deserves attention, and repeated experiment. It has been tried in the Southern States, but we believe without success. A writer in the American Farmer, vol. ii, p. 127, says, "I am of opinion that the fly deposits in the central blade in a few days or hours after the wheat comes up, and is surely moored in its fast hold before the wheat would bear grazing; and that they continue to deposit as long as they live I have no doubt. In our section of the country, wheat, if attacked by the fly, evidently declines at the time the blades make their appearance. This idea be correct, grazing can have no other than a destructive tendency. I am not acquainted with any stock, except sheep or horses, that can bite a blade of wheat at that early stage of its growth below the egg of the fly; nor do I believe that grazing would in the least insure any benefit, if every blade in the field could be swallowed, with all the eggs on them, unless the stock were so fortunate as to take into their mouths at the same time, all the eggs at work."

Dr. Isaac Chapman, in a communication read before the Agricultural Society of Buck's County, Penn. says that there are two generations of these flies. The first lay their eggs the latter part of April and beginning of May; and the second generation lay their eggs the latter part of August, and in September to the 20th. The wheat, by being cropped, or bitten close autumn, should escape the fly during that season, it might, notwithstanding, suffer in the spring, unless the cropping was continued till the fly disappeared. And it is to be feared that much cropping would weaken the plants to such a degree that the remedy would prove as bad as the disease. Still, if experiments in Maine have proved the utility of grazing wheat and as a security against the fly, the practice could be continued; for fact should prevail over theory. We have always understood that the best remedies against the fly are rich and well manured soil, and top dressings of soot, ashes, plaster, &c. which, by giving a rapid growth to the wheat, soon put it out of the way of the insect.

Parsnips may be raised to great advantage as a second crop to peas; the seed to be sowed when the peas are. The writer of this has been in this practice for several years, and has generally found the crop of parsnips thus raised quite as large, and frequently larger, than those raised in beds by themselves. The parsnips protect them from the sun when small.—*Comm'd.*

MASSACHUSETTS LEGISLATURE.

The Legislature of this Commonwealth assembled at the State House in this city on Wednesday. The Hon. Nathaniel Silsbee, of Salem, was elected President of the Senate, and William C. Jarvis, Esq. of Pittsfield, Speaker of the House of Representatives. The Governor and Lieut. Governor, together with the Council and the two branches of the Legislature, were escorted in procession to the Old South by the Independent Cadets, under Lieut. Col. Otis, where the annual Election Sermon was preached by the Rev. Dr. Thayer, of Lancaster. After the exercises at the Meeting House were concluded, the procession returned to the State House, and the two branches adjourned. On Thursday the votes for Governor and Lieut. Governor were counted, and were for the Hon. Wm. Eustis 34,402; Hon. H. G. Otis 30,171; scattering 754. The votes for Lieut. Governor were about the same with those for Governor, and the Hon. LEVI LINCOLN was elected by about the same majority. Both Houses adjourned at an early hour, in consequence of the death of the Hon. John Phillips, a Senator from Suffolk.

FOREIGN.

It is almost as difficult to extract truth from the mass of matter with which we are presented in our imported and manufactured journals, as it would be to obtain sunbeams from cucumbers, according to the recipe of Swift. The French despatches represent that the progress of the invaders is scarcely interrupted by a shew of opposition; but by what we can learn from other sources, we are led to conclude that the French meet with very serious losses in their progress. In the first attack of the French on the fortress of St. Sebastian, the soldiers are said to have distinguished themselves to such a degree, that the Duke d'Angouleme distributed crosses of honor to them with his own hands. The Spaniards having observed them from their fort, ordered forward a 24 pounder, but they were so slow in mounting it that the Duke had time to leave the ground. When fired off the ball passed thro' a house and struck a platoon precisely on the spot where the Duke had been distributing his decorations, and killed and wounded fifteen men.

Portable Army Mill.—Baron Cagniard de Latour, who has already made some interesting discoveries in physics and mechanics, has exhibited to the King of France a Portable Army Mill, which, though it weighs no more than eight pounds, and hardly requires a moment to put it in motion, will grind in the course of the day, grain enough to feed about a hundred men.

New Hampshire Celebration.—On Wednesday, the 21st inst. the second Centennial Anniversary of the first settlement of New Hampshire was celebrated in a splendid style at Portsmouth. Prayers were offered by the Rev. President Tyler, of Dartmouth University. An Oration by Nathaniel A. Haven, Jr. Esq. was delivered; and a Poem, by O. W. B. Peabody, Esq.—These performances, we are told, were elegant, chaste, classical, and replete with information. An elegant and convivial entertainment was given at Wildes' tavern; and in the evening was the most splendid ball ever witnessed in that place. Judge Story, of this town, Hon. Mr. Webster, of Boston, and many other eminent characters, both of New Hampshire and other states, were present at this celebration, which calls up the memory of our heroic and worthy ancestors.

Salem Gaz.

The donations to benevolent societies in our country the last year, were between two and three hundred thousand dollars. Of this sum \$59,000 were received by the American Board for Foreign Missions; and 17 thousand by the American Education Society.

Mineral Spring.—We learn that a mineral spring has lately come into notice, which is situated in Bradford, East Parish, Mass. about a mile from the Merrimac Academy. The waters of this spring are evidently impregnated with iron and sulphur, and have given considerable relief in cutaneous eruptions and bowel complaints.

Astonishing Accumulation.—In England, a pound of crude iron costs a half penny; it is converted into steel, that steel is made into watch springs, every one of which is sold for a half guinea, and weighs only the tenth of a grain; after deducting for waste, there are in a pound 7000 grains—it therefore affords steel for 70,000 watch springs, the value of which, at half a guinea each, is thirty-five thousand guineas.

Of the numbers of the N. E. Farmer already published, only forty sets remain on hand, and they are daily called for. Those, therefore, who wish for the first volume complete, must apply immediately. May 24.

PRICES OF COUNTRY PRODUCE, &c.

[Revised and corrected every Friday.]

		FROM	TO
		D. C.	D. C.
ASHES, pot, 1st qual.	ton.	155 00	160 00
" pearl do.		155 00	160 00
BEANS, white,	bush	1 00	1 10
BEEF, mess, 200 cwt.	bbl.	9 50	9 75
" carg, No 1,		8 50	8 75
" No 2,		6 75	7 00
BUTTER, inspect. 1st qual.	lb.	13	14
" 2d qual.		10	11
small kegs, family,		15	16
CHEESE, new milk		7	9
FLAX		8	9
FLAX SEED	bush	85	90
FLOUR, Baltimore, superfine,	bbl.	7 75	7 87
Genesee		7 75	7 87
Rye, best		5 00	5 50
GRAIN, Rye	bush	72	75
Corn		65	70
Barley		68	70
Oats		40	42
HOGS' LARD, 1st sort	lb.	9	
HOPS, No 1,		10	12
LIME,	cask	1 25	1 50
OIL, Linseed, American	gal.	65	00
PLASTER PARIS	ton.	3 00	3 25
PORK, Navy Mess	bbl.	12 00	12 50
Bone Middlings		14 00	14 50
Carg, No 1,		12 00	12 50
Carg, No 2,		11 00	11 50
SEEDS, Herd's Grass	bush	2 00	2 25
Clover	lb.	8	9
WOOL, Merino, full blood, washed		55	65
do do unwashed		48	50
do 3-4 washed		50	55
do 1-2 do		40	45
Native do		38	40
Pulled, Lamb's, 1st sort		55	60
do Spinning, 1st sort		50	55

PROVISION MARKET.

BEEF, best pieces	lb.	8	9
PORK, fresh		7	9
VEAL,		6	7
MUTTON,		5	7
POULTRY,		10	12
BUTTER, keg & tub		15	16
lump, best		18	20
EGGS,	doz.	12	13
MEAL, Rye,	bush	78	80
Indian,		75	
POTATOES,		40	45
CIDER, liquor,	bbl.	1 50	2 25
HAY, best,	ton.	20 00	22 00

TERMS OF THE FARMER.

Published every Saturday, at THREE DOLLARS per annum, payable at the end of the year—but those who pay within sixty days from the time of subscribing will be entitled to a deduction of FIFTY CENTS.

No paper will be discontinued (unless at the discretion of the Publisher) until arrearages are paid.

Complete files from the commencement of the paper in August can be furnished.

Agents who procure seven subscribers, and become responsible for the payment, will be entitled to a copy gratis, and in the same proportion for a larger number.

ODE TO INNOCENCE.

'Twas when the slow declining ray
Had ting'd the cloud with evening gold;
No warbler pour'd the melting lay,
No sound disturb'd the sleeping fold.

When by a murmur'ing rill reclin'd,
Sat wrapt in thought a wand'ring swain;
Calm peace compos'd his musing mind,
And thus he rais'd the flowing strain:

"Hail, Innocence! celestial maid!
What joys thy blushing charms reveal!
Sweet as the arbour's cooling shade,
And milder than the vernal gale.

"On thee attends a radiant choir,
Soft smiling peace, and downy rest;
With love, that prompts the warbling lyre,
And hope, that soothes the throbbing breast.

"Grant, Heavenly Power, thy peaceful sway
May still my ruder thoughts control;
Thy hand to point my dubious way,
Thy voice to soothe the melting soul.

"Far in the shady sweet retreat,
Let thought beguile the ling'ring hour;
Let quiet court the mossy seat,
And twining olives form the bow'r.

"Let dove-eyed peace her wreath bestow,
And oft sit list'ning in the dale,
While night's sweet warbler from the bough
Tells to the grove her plaintive tale.

"Soft as in Delia's snowy breast,
Let each consenting passion move;
Let angels watch its silent rest,
And all its blissful dreams be love!"

From the Charleston Courier.

THE SPANIEL AND THE MILLER'S DAUGHTER.

The only daughter of a wealthy Miller of Spoleto, while playing with a large Spaniel, fell into the Tiber without the accident being perceived. The dog jumped immediately into the water—reached the little girl, and seizing her strongly by her garments, strove to bring her ashore; but her dress was too weak, and yielding to the water, the courageous dog was obliged to abandon his prize.

Unable to succeed in an effort beyond his power, the desolate creature ran immediately to his master. Unfortunate man! he was yet ignorant of his calamity. The dog informs him of it by the most intelligent sign. Guided by a species of reason, he bore in his mouth the bonnet of his little mistress, and laid it with most piteous cries at the feet of his master.—The wretched father, overwhelmed with awful presentiments, exclaimed, at the distressing sight, "Alas! my daughter." Not, however, losing presence of mind at the calamity which his mute interpreter had so eloquently revealed, he rushed to the bank of the river and threw himself precipitately into the stream. The faithful dog accompanies and guides him the distance of several hundred yards. Prodigious power of instinct! Singular and happy preservation! The Miller, once more a father, has again in his arms his beloved child, already carried far by the progress of the waves. She is rescued from death almost at the moment of expiring. Having reached the mill, with the father carrying the child in his arms, the Spaniel exhibited an equal anxiety with his master for the fate of the girl; and when he saw her

restored to life, he fawned upon her with caresses and joy. From that time he followed her always, and regarded her with a look of content, which indicated that this sensible animal rejoiced in the benefits it had afforded.

From the Baltimore Federal Gazette.

BEG BUG SOCIETY.

At the last annual meeting of the "Female Society for the extirpation of Bed Bugs, and for ameliorating the condition of those who are interested with them," held on the 5th inst. at the sign of the Buggaboo, Mrs. Priscilla Pillow was called to the chair, and Miss Sally Scratch was appointed Secretary pro tem. The annual report was then read—

When on motion of Mrs. Sackingbottom, that the society do now proceed to the election of officers for the ensuing year, seconded by Miss Betsey Bedcord, the business was entered upon forthwith, and on counting the ballots it appeared that the following officers were duly elected:

Mrs. Rachel Ratsbane, President,	
Mrs. Bridget Bedpest,	} Vice Presidents,
Miss Susanna Sheets,	
Miss Charity Coverlid, Cor. Secretary,	
Miss Sally Scratch, Rec. Secretary,	
Mrs. Rose Bloodgood, Treasurer.	

MANAGERS.

Mrs. Priscilla Pillow,
Mrs. C. Sublimate,
Mrs. Lovey Whiskey,
Miss Tacy Turpentine,
Susan Soapit,
Hannah Brush,
Harriet Huntin,
Dorothy Drownem,
Patience Pinchem,
Mary Mashem,
Prudence Stopem,
Ruth Rotem.

On motion of Miss Maria Mite,

Resolved, On account of the multiplicity of business which the members have on hand, in consequence of belonging to so many useful societies, that the Monthly and Quarterly meetings of the Board be dispensed with.

After some desultory conversation on a *very delicate subject*, which it would be improper to publish, it was

Resolved, That in order to *keep peace at home*, the Treasurer be authorised to offer a premium of one hundred cents, for the best model of a machine for Darning Stockings, which may render the superintendence of the ladies of the family, both old and young, unnecessary, to be decided on at the next annual meeting.

SALLY SCRATCH, Rec. Sec.

The common method of drawing cylindrical wire, consists in forcing the metal through circular openings in plates of iron, steel, or some other metal; but it is soon observable that the hole gets worn or deformed, and that the wire then ceases to have the desired regularity. Mr. Brookendon, of London, has nearly remedied this inconvenience by passing the metallic thread through conical holes made in diamonds, rubies, sapphires, or other hard gems. It appears to be unimportant whether the wire be introduced at the large or the small opening of the conical hole, but the best results, upon the whole, are obtained when the wire is entered by the smaller base, and drawn through the larger one.

LAST WEEK'S OMISSIONS.

Imported Bull.—The ship Magnet lately arrived at New York, has brought out a yearling bull of the short horned Durham breed. This animal was bred by Mr. Smith, of Dishley, Leicestershire, is descended from the celebrated bull Comet, sold in the year 1810, for one thousand guineas, and belongs to Mr. J. Brientual of Woodbridge, N. J. This bull is of the same stock from which originated the bulls Denton, owned by Stephen Williams, Esq. of Northborough, and Coeleb belonging to Col. Jaques, of Charlestown.

Indian Corn preserved from Crows.—An experienced farmer in Connecticut states that pieces of cloth dipped in sulphur and grease, and placed upon poles about every 10 or 12 rods, through a piece of corn, will effectually secure it from the ravages of crows. He has practised this method with success the last seven years.

Hessian Fly.—The National Intelligencer states that this insect has made great ravages in the wheat field in the counties of Frederick and Shenandoah, Va.

Commodore Porter has addressed a letter to the Editor of the N. York Evening Post, complaining of abuses in the newspapers, and declaring that there have been no piracies committed since his arrival on the coast, and that our commerce has been effectually protected by his squadron.

The Robert Fulton, arrived at Charleston, from Havana, brings dates to May 7. Every thing was quiet there. Com. Porter had visited Havana, but was not noticed, in any way, by the authorities.

Prize Question.—The Duke of Holstein Oldenb has authorized the Medical College of Oldenberg to award the prize of 200 Holstein ducats for the best answers relative to the causes of yellow fever; whether in the United States it resembles that of the tropical climates; whether it is a specific disease, endemic, sporadic, contagious, and other points connected with its origin and results. The advertisement appears in the Philadelphia National Gazette. Dissertations to be transmitted to George Frick, Esq. Baltimore, a will be received at Oldenberg prior to the 1st day Oct. 1824.

Lightning.—On the night of the 8th inst. the dwelling house of Mr. George Miller, of Lyme, Conn. was struck with lightning and entirely consumed. Mr. Miller, his wife, and one other person were asleep at the time (about 11 o'clock,) and barely escaped, taking with them the beds on which they were sleeping.

Mr. Sheldon Clark, of Oxford, has recently presented to Yale College the sum of \$5000. This is the largest sum ever given to that Institution by any individual.

Rohberies and Murders.—The inhabitants of the southern section of Norfolk County, Vir. have been tremely harassed by runaway negroes, who hide themselves in forests, swamps, and other places difficult access, and shoot the citizens while attending to their rural occupations. They have thus murdered several individuals. The militia have lately been ordered to patrol the woodlands and swamps in pursuit of the banditti.

Extraordinary Haul.—Some men who were engaged in fishing for shad in the river Delaware, opposite Ticum Island, drew up one hundred and eleven sturgeon at one haul. These sturgeon (says the N. York Spectator,) probably made a mistake in their geography, and mistook the Delaware for the Hudson, and Philadelphia for Albany.

The celebrated Mr. Roscoe, of Liverpool, has recently published a valuable work on Penal Jurisprudence, in which he mentions that he has drawn liberally on American sources of information, and enumerates them. An interesting correspondence with W. Tudor, Esq. of Boston, is contained in the Appendix.

A great fire has taken place at Constantinople, the quarters inhabited by the Christians, including immense warehouses of the Franks, which are called the Treasure of the East, were a prey to an ocean of flames. A great number of Christians, of all sects, were cruelly massacred by the Janissaries and the Mussulman populace.

NEW ENGLAND FARMER.

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No. 45.

FACTS AND OBSERVATIONS RELATING TO AGRICULTURE & DOMESTIC ECONOMY

BY THE EDITOR.

ON FARMS, FARM HOUSES, WATER, BARNs, &c.

The sacrifices of the ancient Romans, shew how attentive they were even in the choice of the ground they encamped on; much more were they so in that of the situation and nature of the place where they laid the foundation of their lasting buildings. They examined the waters of cattle fed on the spot, when they offered them in sacrifice; and if these were livid or corrupted, they offered others, as the unwholesomeness of the first might be owing to some usual distemper; but if they were often found to be morbid, they concluded that the air, water, or food, which the place yielded, would have a like effect on human bodies, and therefore speedily left that ground to search for a better situation. If, after repeated trials, they found the livers good, they judged the air and food to be so likewise, and settled accordingly. It is said that the good effects of those precautions may be still observed in the healthy situations of the remains of Roman encampments; they preferred health to every other consideration.

The Romans had pleasure as well as profit in view, when they bought or stocked a farm; and therefore they laid it down as a rule, *that the degree of fertility should tempt a man to purchase in an unhealthy country.* "Buy not too hastily," said the wise Cato, "but view again the purchase you intend to make; if it be a good one, the oftener you see it, the better it will please you. Examine how the neighboring inhabitants fare. Let the country lie in be a good one; the ways to and from it good; and the air temperate. Let your field, if you can choose your situation, be at the foot of a hill facing the south, in a healthy situation, where a sufficiency of laborers, of cattle, and of water may be had. Let it be near a flourishing town, the sea, or a navigable river; bordering on a good and well frequented road. Let the buildings on your grounds be strong and substantial. Do not rashly condemn the methods of others. It is best to purchase from a good husbandman and a good improver."

Open places and campaign countries are judged to be healthy, where the soil is dry, not parched or sandy, where wild thyme and other aromatic plants grow spontaneously, and which are not otherwise bare, but interspersed with trees for shade. A ruddy complexion, clear bite of the eye, quick hearing, and distinct voice, are set down by Palladius as marks of a place where these circumstances are met with in the generality of the inhabitants.

That water is known to be wholesome which is free from mineral in it, is perfectly clear, has no taste or smell, deposits no slimy sediment, leaves no spots or incrustation when boiled in copper or brass vessels, and which boils peas, beans, &c. soft in a short time. "Rain water," says Sir Thomas Elliot, in his *Castle of Health*, is the most subtle and pure of any other wa-

ter. The next is that which issueth out of a spring facing the east, and passeth swiftly among great stones or rocks. The third is of a clear river which runneth on hard pebbles and stones. There be divers means to try which is the best water; for that which is lightest in poise or weight is best; also that which will soonest be hot; also that whereof cometh the least scum or froth when it doth boil. Moreover, dip linen cloths in sundry waters, and afterwards lay them to dry, and that which is soonest dry, the water wherein it was dipped is the most subtle."

Light waters, other things being equal, are the best, purest, and wholesomest. That water is accounted best and wholesomest, which is not only the lightest and freest from earthy sediment, but that which is most spiritous. And these properties are usually found in pure rain water, which being naturally distilled from the ocean and rivers, or by the heat of the sun raised into the atmosphere from whence it is returned much after the manner of common distillation. If any mineral substance is mixed with the water it is not fit for the farmer's use. If it be hard, it is thereby rendered unfit for washing, and some other kitchen uses. This is the kind of water which gives flesh boiled in it a red color. But even the hardest water may be easily rendered perfectly soft and fit for any use, by mixing it with a small proportion of potash, soda, or for want of these the ashes of any burnt vegetables.

When water is tainted by animal or vegetable substances being mixed with it, the noxious qualities may be carried off by boiling, during which the putrid particles evaporate, and whatever else remains will subside when the water cools. Or it may be corrected by mixing with it acids, such as vinegar, juice of sour fruits, &c.

M. de la Hire observes in the *Memoirs of the Academy of Sciences*, that rain water, which has been purified by passing thro' clean sand, and is afterwards collected in subterranean reservoirs, will keep a long time without becoming putrid. He thinks this the best water that can be made use of either for drinking or for other economical purposes, because it is not impregnated with any mineral, as spring waters sometimes are. The only thing requisite in the construction of such reservoirs or cisterns is to have a place which will hold water, made of such materials as will not communicate any bad taste to the water, which is to remain there a considerable time.* The first water, which falls from the roofs of houses, when it begins to rain should be thrown away, as having served only to wash the roof, which in dry weather is always covered with dung of birds and other filth. He rejects snow water for the same reason, and likewise the water of rain brought by winds, which pass over places infected with ill smells, as large cities, sinks, &c.

Columella, who appears to have been very much of a gentleman farmer, and therefore solicitous for the accommodation and comfort of ladies, says "the farm house should be some-

what elegant, in order to allure the wife to take delight in it." Comfort, convenience, cheapness of construction and durability, are, however, the things chiefly to be consulted in erecting a farm house. No farmer, who has not a large capital, should begin with building a costly house, unless he wishes to see it sold at a sheriff's auction. His house, barns, &c. should be as near the centre of his farm as possible. If these are placed in the corner of a large farm, a part of the land will be liable to be neglected, less manure will be sent to it, and the expense of cultivation will be greatly increased, in consequence of the waste of time and labor of men and working animals in going backwards and forwards over the estate. This general rule should hardly be dispensed with, unless such circumstances as the impossibility of procuring good water, or the want of a good building spot, should require some deviations. When the case will admit, the farm house, barn, &c. should front the south, be sheltered from northerly winds, and the barn yard should enjoy the benefit of the rising sun in the winter.—The farmstead should be placed on ground a little elevated above the farm in general. This is not only more healthy, but carts will bring home the grain and other products of the field with less waste when proceeding over land a little ascending. The manure from the farm yard will be conveyed down hill to the fields in the most cheap and expeditious manner; and what wash or drainings from the yards are suffered to escape, (which should be as little as possible) may be disposed of to better advantage than from a yard situated in a low corner of the farm, where perhaps they serve to manure the highway or a neighboring brook. Besides, when the house is built in an elevated situation the farmer may have a chance to see what is going on all around him.

There is something so pleasing in the appearance of neatness and cleanliness about a dwelling house, that even a stranger, transiently passing by, cannot help being prepossessed with a favorable opinion of those within. He passes along with the idea fixed in his mind of prosperity and happiness presiding within those walls. How different the sensation felt on viewing a contrary scene:—a house dismal and dirty, the doors and walls surrounded and bespattered with filth of all denominations, and fragments of broken dishes and dirty dairy utensils scattered in all directions impress on his mind the idea of misery and mismanagement.

It adds greatly to the beauty and neatness of a dwelling house to have a little plat of garden ground or shrubbery before it. This not only contributes to keep every thing neat and clean in front, but is often more easily managed than a garden behind the house.

It is a common practice, and with many a general rule, to build the farm house adjoining, and perhaps in contact with the sheds, barns, and other out houses. When the buildings are thus all situated in one clump, if one takes fire the whole will probably be consumed. Besides it is disagreeable and unwholesome to live too near manure heaps, and as it were in the midst

* For observations on the construction of cisterns, see p. 204, of the *N. E. Farmer*.

of your herds of cattle and swine. The barn should therefore be placed at a convenient distance from the dwelling house and other buildings; but as near as may be without danger of fire. Too low a spot will be miry in spring and fall. Too high an eminence will be inconvenient for drawing in loads, and on account of saving and making manures. If other circumstances permit, it may be best to place a barn in such a manner as to defend the dwelling house from the force of the coldest winds.

FOR THE NEW ENGLAND FARMER.

DURABILITY OF TIMBER.

In No. 39 of your paper, I published the remarks of two respectable characters of great experience, relative to the duration of timber; and will now relate my own observations.

In June, 1790, I built the first saw mill in this place; the timber was all white oak, and most of it fell and hewed in the month of February, when hard frozen. The millwrights came in June and altered my plan of the frame, and hewed some long timbers of white oak when the bark peeled. The saw mill stood firm for twelve years; then the timbers fell in June began to fail, and in fourteen years were perfectly rotten, and the frame beginning to fall. In 1816 it was all pulled away, and a new mill built in the place. Many of the timbers that had been fell in February were perfectly sound and made use of. I observed that all such had been young thrifty timber, of large growths; and pieces of brush wood, and small growths had become dotted and rotten in 26 years; and so far as respects white oak timber, I am fully satisfied that Alexander Brown's theory, as mentioned in No. 39, is perfectly correct.

The same rule will not hold good in regard to some other kinds of timber, more particularly Hemlock and Hickory, in which I have made some observations. In the year 1790, I was anxious to hire hands to cut and peel hemlock logs for a log barn in the fore part of summer, before the bark set fast, but was advised by an old man from Rhode Island, to adjourn cutting such logs until the bark would again peel in the month of October, with the fall of the sap; then, he said, *the logs would last forever*. I had no experience in hemlock timber, and took his advice. The logs were cut, peeled, and the barn raised in October; and, as yet, the logs appear as sound as when they were first raised, and show no disposition to rot. Some years since I built a house of hemlock logs, cut in midsummer, when the bark would not peel, and the logs rotted in a few years.

In the year 1797, I built a house of hemlock logs, cut and peeled in the month of June. It is yet standing, but the logs much rotten.

White pine timber should be felled in the winter, when hardest frozen, and the bark hewed off; then the sap part of such logs will remain white and sound several years. If the bark is left on them the sap part will turn black, and the logs be worm eaten. If green white pine logs are cut in the summer when the bark will peel the sap part turns black, the boards mildew and soon rot, as will the logs. A green white pine tree chopped down, will last but a few years, unless fell when frozen, and the bark hewed off. A white pine tree blown up by the roots some ages or centuries ago, is the most durable timber we have. The sap part rots,

and the turpentine retreats into the solid wood, so that it appears greasy, and will gum up the mill saw. Such fallen trees, in time, coat over with moss and shew no inclination to rot.

In September and October, 1790, I made use of some such old and mossy logs, with green ones for weather boards and shingles. Those made of the green logs are on the decay;—those of the old logs shew no further sign of decaying, only they grow mossy.

I am clearly of opinion that formerly timber was more durable than latterly, and for the following reasons:—In the neighborhood of my nativity, (Bucks county, Penn.) there are three log buildings yet standing, much older than any person living. The one a large log barn built by my mother's father. The logs are peeled hickory. It belonged to my uncle. I have thrashed many days in it, for him, and frequently heard him say it was built by his father before his memory. If he were now living, he would be upwards of 100 years old. The other two are dwelling houses; and all three within a mile of each other. In one house the logs are peeled hickory; the other oak, with the bark on. Four years ago, I paid, perhaps, my last visit to the place of my nativity, and went to see all those old buildings. They did not appear in the least decayed; had been shingled a number of times; and one age or more had rolled away since any person living could remember the building of either, or which was oldest.

During the revolutionary war, there was a large log barn built in the same neighborhood, and in plain sight of those three old buildings. I was at the raising, did the chopping at one corner, and well remember the logs were all peeled hickory, and were very slippery to stand on. The barn soon rotted, and fell down, and twenty years ago I furnished the lumber from my mills at this place for a stone barn on the same spot.

Notwithstanding I had seen those old buildings within four years, as I have a younger brother in that neighborhood, since writing my publication of April 10th, I wrote him to go and examine those three old buildings, and write me the particulars of their condition, &c. He has done it. He says *they are all standing sound, and occupied as heretofore; and from any thing he could discover may stand as much longer*.

I have, some thirty-five years ago, been much employed in making roads through this part of the country called *Beech Woods*; and from my several observations am fully convinced that the quality of the soil has had no more to do with the kinds of timber, than the soil of Great Britain with the invasion of Julius Cæsar. One instance I will mention. In crossing a ridge, there appeared formerly to have been a great wind fall, all the trees lying tops to the north; the logs all coated over with moss; some very large. I avoided them what I could, and in cutting into them they were perfectly sound in the middle, and were white oak, yellow poplar, and hickory of large growths. There were none of either of those kinds to be found growing; all the standing timber was beech, sugar maple or hemlock. They appeared to have grown up since the wind fall. By cutting some of the largest they were found to be upwards of 200 years old.

New England has produced more very old

timber than the warmer southern states, and perhaps many such are yet living who have made useful observations on the properties and duration of timber. All such observations should be published, as it is an important subject that will increase in consequence for future generations.

SAMUEL PRESTON.

Stockport, Pa. May 16, 1823.

FOR THE NEW ENGLAND FARMER.

POTATOES.

MR. EDITOR,

If you think the following article worthy of insertion in your valuable paper, after correction, you have it at disposal.

Potatoes, which are the most useful and profitable roots the farmer can make use of, are often spoiled and lost for the want of a little attention in planting, and securing them in autumn. It has been the custom of many careless farmers to plant their potatoes very early in the season, in order that they might dig them before frosts in the fall. Others think they do better to defer planting them until late in the spring. Be that as it may, I will give you my way of raising and securing them. If they are to follow corn, which is my usual practice, plough the ground late in the fall, very deep, and let it lie until spring, when I manure properly, say ten cords of manure to the acre if in good heart; if not, I put on more. About the 20th of May, after the manure is even spread, I run it over with a plough just so as to cover it. I then, with a horse plough, mark out the land in rows, three feet distant one way, and about two the other—then take the second of my large potatoes and place them in the corner with the cut side down, with two pieces in each hill. This being done, I take two or three pieces of the cob of Indian corn and plant in each hill; then I cover them with earth. After they are up a hand full of Plaster of Paris or leached ashes dropped on every hill is essential service.

When the potatoes are ripe in the fall, that is, when the vines are dead, I dig them and put them into a pit, dug on a knoll, with a trench two feet deep, leading from the pit out, which I place a common pump log, with the end to the edge of the hole. After placing boards over the hole, cover the whole with a thickness of earth sufficient to prevent the frost from reaching them. In this way any quantity can be put together without danger of the heating. Care should be taken to prevent the mice from getting to the hole through the log by nailing a piece of tin with holes punched in it on the outer end.

A FARMER.

FOR THE NEW ENGLAND FARMER.

REMEDY AGAINST WEEVILS.

MR. EDITOR,

In your paper a few months since it was observed by one of your correspondents that Weevils did not migrate. It was but a few days before I saw that paper, that one of our most careful and experienced farmers made the same observation to me, giving as an illustration that some years since they got into one corner of his garret, in which he had always kept Indian corn, and were troublesome to him there for two or three years, but never got across to the other part of the garret. And he further observed

erved that he had ultimately destroyed them, having in the part of the garret where they are a few plants of tobacco when first cut in a fall; and that from his own experience, and the observation of others, he believed this would generally prove an effectual remedy against them.

My own observation justifies me in the belief that they have but little disposition to emigrate, and if this be the fact, it will show the importance of not moving grain in which they are, to other parts of buildings; and suggests many easy ways of destroying or greatly diminishing them.

P.

From the American Farmer.

AGRICULTURAL PROSPECTS—REVERSED.

Wheatland, May 19, 1823.

DEAR SIR—In No. 7, of the American Farmer observe an extract from my letter to you of the 23d ult. and a corresponding one from another correspondent, giving the most favorable presentation of the state of our crops in this section of the country; as I conceive it to be of importance that the community should be kept correctly informed as to our "agricultural prospects," and as these prospects are most wofully and fatally changed since the date of the above communication, I deem it to be my duty to apprise you of the melancholy fact, to guard against the evils that might arise from erroneous impressions on this interesting subject. In consequence of the general failure of crops for the three preceding harvests, together with the reduced prices of the staples of the country, a body of our farmers had become awfully embarrassed in their pecuniary circumstances, and they laudably determined to make an extraordinary effort last fall to relieve themselves from their difficulties by putting in much larger crops of small grain than usual. The rye harvest, been previously committed to the earth, the seeding of wheat commenced early in the month of September; and many of the largest crops were put in, and finished by the first of October. During the ploughing season not a drop of rain fell, and that operation was consequently performed in the best possible manner. At the latter end of September the rains set in—the wheat was brought up finely, and being liberally nourished by a continuation of the most genial seasons, vegetation advanced with a rapidity and vigor never before experienced, and the fields by the month of December were as verdant, and the growth as luxuriant, as generally in the month of April. The winter was considered to be unfavorable. Vegetation continued to advance with unprecedented rapidity during the early spring—and our fairer prospects received no check, until a few days after the first of May, when the wheat was discovered to be at a stand; this was at first attributed to the May-weed which sprung up in our fields a thousand fold thicker than was ever known; but as this weed is very short lived, and had heretofore been regarded as harmless, our apprehensions were entertained that as soon as its ephemeral growth was over, our crops would revive and flourish without farther interruption. Delusive hope! From that time the crops were perceived to decline daily and rapidly, and the farmer soon became assured that his hopes were blasted by the ravages of an enemy whose powers of desolation are unbound-

ed, and against whose assault he possesses no means of resistance. The havoc committed by the *Hessian Fly* is without example, and surpasses all description. Our fields are literally laid waste, and cattle are turned on many of them, which three or four weeks ago promised an ample remuneration to the industrious farmer for his anxious and toilsome care. His late hopes, so bright and so buoyant, are converted suddenly into black despair. I have already said that our people are generally in debt.—This misfortune exists to an alarming and awful extent. What they will now do under this new and severe calamity I cannot tell. It is known only to Him who in his inscrutable wisdom dispenses it!—Our clover has wholly failed for the two last seasons, and its place occupied with innumerable weeds of the most pernicious kind. The rye crops are remarkably good.

I have given you, my dear sir, a gloomy, but a faithful picture—rest assured it is not exaggerated.

With sincere regard and esteem,

Yours truly,

H. S. TURNER.

N. B. Great complaints, as usual, of the grub or cut-worm, in the early planted corn. Even mine has been severely attacked under circumstances that have resisted its effect uniformly for many successive years.

The following is copied from an English publication, but whether it will answer the purpose pretended, we cannot say. A trial might be made at a trifling expense.

DESTRUCTION OF FLIES.

Most of the fly waters, and other preparations sold for the destruction of flies, are variously disguised poisons, dangerous and even fatal to the human species; such as solutions of mercury, arsenic, &c. mixed with honey or syrup. The following preparation, however, without endangering the lives of children, or other incautious persons, is not less fatal to flies than even a solution of arsenic. Dissolve two drachms of the extract of quassia in half a pint of boiling water; and adding a little sugar or syrup, pour the mixture on plates. To this enticing food the flies are extremely partial, and it never fails to destroy them.

Best method of making common Sirup of Sugar for general use.

Dissolve one pound and three quarters of powdered double refined sugar in a pint of water, by means of what is called the water bath, or *balneum mariæ*; that is, by setting the vessel which contains it in a saucepan, kettle, or copper of water, over the fire, till the sugar be thoroughly dissolved, and the sirup properly formed. This, besides other advantages, prevents the danger of the sugar's boiling over, which is much to be apprehended in the common mode of boiling sirup in large quantities. After it has stood a few hours, take off the scum, and pour the sirup into a stone jar or bottle for use.

To make Broth without Meat.

Boil a small quantity of mushroom catsup in very thin gruel with a few leaves of stewed parsley, and a little salt. The mushroom more than any other vegetable substance, perhaps,

approaches the nature and flavor of wholesome animal flesh. Walnut liquor will by no means answer this purpose.

From Niles' Weekly Register.

Something Strange.—The two following articles are from late British papers. We give them as we found them, frankly confessing that we cannot understand what seems so gravely asserted—yet it seems probable that some great improvement in the art of printing is about to be brought into use.

From a London paper of March 2.

Dr. Church is now at Birmingham, preparing his new printing press. The compositor has only to set down at this curious piece of mechanism, as he would at a piano-forte, and as he strikes the keys, the types all fall from the case into their proper places, with a velocity that keeps pace with the most rapid speaker. The form having been worked off, the type moves into the melting pot, from which it is returned, re-cast in its original state, without any diminution of the material, and thence distributed into the case quite new. One of these presses, placed at the bar of the House of Commons, would always insure a correct report of the debate. Dr. Church, the inventor, is a native of Boston, in New England."

To the editor of the New Globe.

SIR—Permit me to correct an article which appeared in your paper of Monday, under the head of "extraordinary inventions," relating to Dr. Church's *printing apparatus*, which, as it there stands, conveys a wrong impression respecting it. The printing press that has been constructed, having flat surfaces, and though rapid in giving off the finest impressions, is in no way connected in its operations with either the composing or type founding machines.—Neither has Dr. Church asserted or even anticipated being able, by his composing machine, "to keep pace with the most rapid speaker," as is there stated; but he has been enabled, on a single machine, to set up more types, and with more correctness, than four compositors could do in the same time.

It is correctly stated, that little or no loss of metal takes place in casting the types, as the atmosphere is excluded from the metal when in a fluid state, and the only connexion there is between the composing and type founding machine is this—the type founding machine deposits the types in the case, in the order they are required by the composing machine, to which the case is afterwards taken, when required for use.

It is also true that the *form*, after being used, is returned to the melting pot, and the types re-produced anew; as this mode of *distributing* is much more rapid than the present method, and besides insuring a *perfect distribution*, also insures a new and perfect arrangement of the types in the order required for the composing machine, as well as producing a *perfect letter*. From the machinery he has already constructed, and the experiments made in the various branches of the printing apparatus, the most complete success may, with confidence, be anticipated.

Dr. Church is now at Birmingham constructing his machinery.

VERITAS.

London, March 18, 1823.

From the United States Gazette.

ANALYSIS OF CORN.

Dr. Gorham, of Harvard University, has made some experiments upon corn, in order to discover its constituent parts. According to his analysis, yellow Indian corn, in the common and dry state, is composed as follows:

	Common state.	Dry state.
Water	9 0	
Starch	77 0	84 599
Zeine	3 0	3 296
Albumen	2 5	2 747
Gummy matter	1 75	1 922
Saccharine matter	1 45	1 593
Extractive matter	3	879
Cuticle and ligneous fibre	3 0	3 296
Phos. carb. sul. of lime & loss	1 5	1 648
	100	99 980

The powder of the corn is hygrometric, and the quantity of water in it varies with the state of the atmosphere. Sometimes it would lose 12 per cent. on drying, at other times not more than half that quantity. In some experiments on the coloring matter of the different colored varieties of Indian corn, it was found to be soluble in both water and alcohol, and to become green by alkalies and red by acids.

A spirituous liquor may be obtained from Indian corn, in consequence of the changes which take place in its saccharine matter.

POLISHING POWDER FROM CHARCOAL.

Mr. J. Thompson, of Glasgow, turned his attention, some time ago, to the property possessed by charcoal, of giving a fine polish when rubbed on metals. This property is not possessed by charcoal in general, but has been found to belong only to particular pieces; no means were known by which such charcoal could be distinguished, except actual trial, nor was the cause of the superiority of some pieces over others, at all understood. Mr. Thompson, in consequence of being informed that the Dutch rush used in polishing wood, owed its powers to silex, was induced to suppose that charcoal, made from wood, growing on sandy soils, would have the property required, and on trial this was found to be the case. It frequently happens, that turners meet with wood which very rapidly turns the edges of their tools. Mr. Thompson procured some of this wood, and having converted it into charcoal, tried its polishing powers. They gave great satisfaction; and hence Mr. T. recommends, that turners, cabinet makers, &c. should lay aside such wood when they meet with it, as a source of charcoal to the copperplate workers, &c. to whom it is of more value than to the former, and who are constantly in want of polishing charcoal.

It may not be amiss to add, that the ashes of our Lehigh and Schuylkill coal has been employed with great success in polishing brass furniture.—*ibid.*

The following methods of making yeast for bread are both easy and expeditious: Boil one pound of good flour, a quarter of a pound of brown sugar, and a little salt, in two gallons of water for one hour; when milk warm, bottle it and cork it close; it will be fit for use in 24 hours. One pint of this will make 18 pounds of bread.

To a pound of mashed potatoes (mealy ones are best) add two ounces of brown sugar, and

two spoonfuls of common yeast; the potatoes first to be pulped through a cullender and mixed with warm water to a proper consistence. Thus a pound of potatoes will make a pound of good yeast. Keep it moderately warm while fermenting. This recipe is in substance from Dr. Hunter, who observes that yeast so made will keep well. No sugar is used by bakers, when adding the pulp of potatoes to their rising.—*ibid.*

PRESERVATION OF GRAIN, &c. FROM MICE.

Mr. Macdonald, in the Hebrides, having suffered considerably from mice, put at the bottom near the centre, and at the top of each sack or mow, as it was raised, three or four stalks of wild mint, with the leaves on, and never had any of his grain consumed. He tried the same experiment with his cheese and other articles kept in store and often injured by mice, and with equal effect, by laying a few leaves, green or dry, on the article to be preserved.—*ibid.*

NEW HAMPSHIRE CELEBRATION.

On the 21st ult. the settlement of New Hampshire was commemorated in a mode which has received, and doubtless merited, much applause. As ours is not, properly speaking, a news paper, we shall give but a brief outline of the proceedings, abridged from the Dover New Hampshire Republican.

After an appropriate Prayer by President Tyler, an Oration was pronounced by Nathaniel A. Haven, Jr. Esq. of Portsmouth. Of this performance it is sufficient to say that the speaker equalled the expectations of his friends. His discourse was classical, ingenious and eloquent; containing much valuable information, and indicating a liberal and cultivated mind. The Poem by Mr. Peabody, of Exeter, was a vigorous and spirited performance: that gentleman proved to the public that he possesses fine talents, and a knowledge of the history and antiquities of the country, scarcely less rare than the possession of such talents. Of both these performances, we shall only say at present, that we join in the general wish that they may be given to the public.

Some appropriate Odes, written for the occasion by the Rev. Thomas C. Upham, of Rochester, were sung in very fine style, by the members of the Handel Society in Portsmouth.—The exercises were about three hours long, yet probably no person perceived their length; every one regretted their conclusion. After the exercises two hundred gentlemen dined together in Jefferson Hall. Hon. John F. Parrott presided at the dinner, assisted by Edward Cutts Jr. Benjamin Penhallow, Enoch G. Parrott, and Samuel Larkin, Esq's. of Portsmouth, Colonel Chadwick, of Exeter, and Colonel Pierce, of Dover. Among the strangers present, were Judge Story of the Supreme Court of the U. S. Rev. Mr. Palfrey, Daniel Webster, Geo. Blake, and Nathan Hale, Esq's. of Boston; President Tyler, and Professors Adams and Haddock, of Dartmouth College, together with many of the Rev. Clergy, and gentlemen from the adjacent towns.

The dinner was chiefly of Fish, of all known names, and cooked in all possible variety. After the cloth was removed, the following Toasts were drunk, and many fine songs finely sung—copies of which we hope soon to obtain.

1. The planting at Pascataquack "in the spring" of 1623, and the rich harvest it has yielded.

2. "The goodly forests, fair vallies and chrysal hills of Laconia."

3. The heroes of Louisburgh—an earnest New Hampshire prowess.

4. Major Sullivan and Captain Langdon—our delegates to Congress in '75; who supplied Bunker Hill with powder from his Majesty's fort at Pascataquack.

5. The New Hampshire regiments in '77 at Bennington, Stillwater & Saratoga; Gen. Manton and Monmouth.

6. Meshech Weare, at once Speaker of the House—Chief Justice, and first President of the State.

7. The Fisheries—the first interests of the first settlers of New Hampshire.

8. The absent sons of New Hampshire, who have made her name abroad to be respected let us at home with gratitude remember them.

9. Our literary and religious institutions—Monuments erected to the memory of our ancestors by their own hands.

10. The surviving Patriots of the revolution—a few bright stars yet adorn the horizon.

11. Our Fathers two hundred years ago, and our descendants two hundred years hence—May there be no weak link in the great chain that connects them.

12. The cause of '76 all over the world—May it have the spirit of '76 to maintain it.

VOLUNTEERS.

Hon. D. Webster being called upon for toast, remarked that although not at home, he hoped he should not be considered entirely a stranger; he reminded the company—of whom none had forgotten—that he was a native of New Hampshire; he briefly but eloquently remarked that this was the land of his birth—of his education and of his dearest associations; the pleasures of the day were not a little heightened by the consciousness that those were present who directed his studies in youth, and assisted him with their counsel in manhood; he said he could not better express his feelings than by the words of the Poet:

NEW HAMPSHIRE.

"Where'er I roam, whatever realms I see,
My heart untravell'd fondly turns to thee."

Hon. Judge Story remarked that although not a native of this state, he was yet a citizen of New England; and he adverted to those circumstances which did excite and which ought to excite throughout New England a similarity of feeling and sentiment, as they produced unity of interest. He then called the attention of his auditors to that country from which New England was settled, and gave

ENGLAND.—The land of our forefathers, at the land of their descendants—May it ever enjoy with us, a common learning, a common religion and a common liberty.

By George Blake, Esq. of Boston. This day a thousand years hence—May it find our posterity as free, as prosperous, and as happy as has found us.

By the Rev. Mr. Palfrey, of Boston. The two May flowers—the one which bore the Pilgrims to New England, and the other the strawberry blossom, which met the first settlers of N. Hampshire on the banks of the Pascataquack.

By Rev. Mr. Burroughs, of Portsmouth. *Dr. Belknap*, the historian of New Hampshire.

By Hon. John F. Parrott, president of the day. The manners and principles of the first settlers of New Hampshire: Bold in enterprise—persevering in action—intrepid in danger—patient in adversity:—May a double portion of their spirit rest on their descendants to the thousandth generation.

By Mr. Moore, of Concord. The Orator and Poet of the day.

By Edward Cutts, Jun. Esq. *The Fisheries*, and *John Quincy Adams*, their modern defender.

By Judge Hale, of Barrington. The Militia of New Hampshire.

By Alexander Ladd, Esq. The distinguished guests who have retired.—It is not among the least of the honors of the day, that it has been honored with the countenance and company of such men.

In the evening a very superb ball was given at Franklin Hall, in which it is supposed there were present nearly four hundred ladies and gentlemen. The walls of the room were entirely covered with portraits of eminent persons who flourished in this state before the revolution—the Wentworths, Jaffreys, Warners, Sparhawks and Atkinsons of old times. After spending the evening in innocent gaiety the company separated at a seasonable hour; every one was pleased with the transactions of the day;—the most perfect order and good conduct were manifest in every particular—there was no confusion and no disappointment: the sentiment was universal, that every thing which could have been done, was done, and every thing that was done was well done.

NEW ENGLAND FARMER.

SATURDAY, JUNE 7, 1823.

The Farmer's and Gardener's Remembrancer.
JUNE.

ATTEND TO YOUR FRUIT TREES.—The ground immediately about fruit trees should be kept loose and free from weeds. Where the best orchard cultivation is practised the soil around the fruit trees is dug at least twice a year, in spring and autumn. While the trees are young, you may raise arable crops, such as potatoes, Indian corn, cabbages, &c. but be very particular not to injure the roots of your trees by ploughing too near them. When you have completed your ploughing, dig up the grass which the plough leaves. If you find that your trees are infested with lice (a sort of vegetable barnacles, which look like half a kernel rye, and ascend apple trees some time in this month) you may destroy them, as we have been told, with a swab and hot water. Mr. Cobbett, speaking of these insects, says, "As to the diminutive creatures that appear *as specks in the bark*, the best, and perhaps the only remedy against the disease of which they are a symptom, consists of good plants, good planting and good tillage."

WATERING PLANTS.—All the books of agriculture and horticulture which we have ever read, with the exception of Mr. Cobbett's work on Gardening, recommend the occasional watering of plants. Mr. Cobbett, however, says, "Watering plants, though so highly recommended in English Gardening Books, and so much in practice, is a thing of very doubtful utility in any case, and, in most cases, of positive injury.

A country often endures present suffering from long drought; but, even if all the gardens and all the fields could, in such a case, be watered with a watering pot, I much question whether it would be beneficial even to the crops of the dry season itself. It is not, observe, rain-water that you can, one time out of a thousand, water with. And, to *nourish plants*, the water must be prepared in clouds and mists and dews. Observe this. Besides, when rain comes, the earth is prepared for it by that state of the air, which precedes rain, and which makes all things *damp* and *slackens* and loosens the earth, and disposes the roots and leaves for the reception of the rain. To pour water, therefore, upon plants, or upon the ground where they are growing, or where seeds are sown, is never of much use, and is generally mischievous; for the air is dry; the sun comes immediately and bakes the ground and vegetation is checked rather than advanced by the operation. The best protector against frequent drought is frequent *digging*, or, in the fields, *ploughing*, and always *deep*. Hence will arise a fermentation and dews. The ground will have *moisture* in it, in spite of all drought, which the hard unmoved ground will not. But always dig or plough in *dry weather*, and, the drier the weather, the deeper you ought to go, and the finer you ought to break the earth.—When plants are *covered by lights*, or are in a *house*, or are covered with cloths in the night time, they may need *watering*, and, in such cases, must have it given them by hand.*

We do not wish to vouch for the correctness of all Mr. Cobbett's theories, nor can we say how much confidence is due to what we have just quoted. We believe, however, that many people water their plants, when they would do better to let them alone. Perhaps the question of watering or not watering plants admits of no rule not liable to a vast many exceptions. The kind of plant, the period of its growth, the nature of the soil, and the degree of drought which is prevalent, are all circumstances to be taken into consideration. Dr. Deane, whose authority, in questions relative to American Husbandry, has at least equal weight with that of Mr. Cobbett, says, "Vegetables that are newly transplanted, as they have their roots more or less diminished, or otherwise injured, often need watering till they have taken new root. But this should be done with caution. If a dry season follow the transplanting, let them be watered if they appear to droop, only on evenings, and in cloudy weather, and with water that has been exposed one day at least to the shining of the sun; not with water directly from a well, or a cold spring, as it will give a chill to the plants. Only a small quantity should be applied at once, that it may have an effect similar to that of a refreshing rain. For water, applied too plentifully, sometimes washes away the finest of the mould from the roots, or makes little cavities about them which admit too much air.

"In a dry season, whole gardens sometimes need watering; and in doing it the above precautions are to be regarded. They are happy who have a piece of standing water in their garden, or a rivulet near at hand, from whence the garden may be watered without much labor."

* American Gardener, par. 187.

Mr. McMahon says that "newly planted fruit trees will be greatly benefitted by occasional waterings, which should always be given in the morning, and frequently over the branches as well as about the roots; this will be of great service in washing off any dust and filth which their leaves may have contracted, and in opening their pores for the reception of atmospheric moisture."

"Watering with common water proves very beneficial to trees infected with insects; especially if thrown against them with some force, by means of a small water engine. This will not only displace caterpillars and many other insects, but greatly refresh the trees, especially in dry weather; and if often repeated where insects appear, it will considerably diminish their number, and prevent their spreading.

"The most eligible engines are such as have the pump and discharging pipe fixed in the vessel for containing the water; of which some are of a moderate size for carrying about by hand, but larger ones are fitted upon a low, light, three wheeled carriage, for the more convenient removal from place to place. This engine may be conveniently used for watering different parts of the garden in dry weather."

We have heretofore adverted to the practice of Swiss and Flemish farmers, of leaching or washing manure, and applying the liquid part to their growing crops. If your soil is not very rich, it may be well, whenever you water your vegetables, fruit trees, &c. to use liquids of this kind, or such as may be obtained by leaching ashes, soot, &c. or a mixture of all these substances. At least those who have but little land and much leisure may employ themselves very philosophically in making experiments of this kind. A little soap, tar or turpentine, and extract or decoction of elder superadded to your liquid would be as it were taking a bond of fate to destroy your insects. Thus you may answer three valuable purposes at once, viz: 1st. Water your plants or fruit trees—2d. Manure, do.—3d. Kill off the insects which infest them. But it may be advisable, 1st, To decant or strain your liquid before it comes in contact with the buds, leaves or flowers of vegetables, lest it should close the pores and stop or check perspiration: 2d. Apply nothing too corrosive or stimulating, such as lime water, strong lie, or a strong solution of salt directly to growing plants: 3d. If your soil is rich, probably pure water, or at least water impregnated alone with some substance which is hostile to insects, such as elder, or tar may be preferable.

WATERING WITH SEA WATER.—Salt has been highly recommended both as a manure and as an antidote to insects. Some writers, however, condemn it, and in large quantities we know that it totally destroys vegetation. So a small quantity of salt will, it is said, hasten putrefaction, but a large quantity puts a stop to it. We have not merely the authority of books, but we have been told by farmers in this vicinity, that they have experienced great and decided advantages from salt used as a manure. Sea-water is undoubtedly to be preferred, as a manure, to common salt, as it contains many substances favorable to vegetation, which do not enter into the composition of common salt.

Dr. Deane observed that "In the year 1786, one hundred hills of potatoes near the shore were watered with sea-water, about two quart

in a hill, being one hour's work for a man.—The crop was half as much again as in the same number of hills adjoining. The water was applied to the sod just after planting the sets, which I suppose to be the best time of doing it, as there can be no danger of burning the young shoots, and as the salt will be mixed with rain and the moisture of the earth, before shoots are produced.

"In the year 1787, alternate rows were watered in the same manner with sea-water. The result of this experiment was uncertain; because by ploughing off and on between the rows, the earth of the watered and unwatered rows was blended together. But altogether a good crop was obtained.

"The same year a piece of flax was, in the month of June, very short and yellow on one side of the piece; but of a good color on the other and much taller. This induced the owner to water the poor side from the sea. In ten days it was equal in length and color with that on the other side, though very little rain fell in the time. At pulling, the watered side was evidently better grown than the other. This was a sufficient demonstration of the advantage of sea-water, when the land lies adjoining to the sea shore, so that the labor of applying it is inconsiderable. The above experiments were made in a clayey soil.

"In a sandy soil, the same year, watering the ground where French turnips were just sown, had an excellent effect. Though it was a spot where the turnips had been destroyed by insects several years successively, they generally escaped this year. Not more than one painful was applied to a drill row two rods in length, wetting the ground over the seeds soon after sowing.

"Salt water applied to tender plants, most commonly proves too strong for them, if applied when the ground is dry. But if it be wet, the strength of the water is abated by mixing with the juices of the soil, before it is taken up by the roots, and thus it is rendered innocent and safe, as I have found by experience. The seeds bear the application of the sea water better than the young plants do."

The Farmer's Assistant gives the following directions relative to the use and application of sea water as a manure. "Sea water might be carried from the sea some distance on the land, to advantage, in the following manner: Take a one horse cart, and suspend a tight box, rightly shaped, under the axle-tree, the box having a valve in the under side; drive the cart into the water, and the valve opens and lets that fluid into the box; and, when the cart is driven out, the valve closes and holds the water.

"When the cart is driven out to the ground on which the water is to be spread, this operation may be performed in the manner we shall next describe: A tube is to be provided, say twelve feet in length, with small holes bored into it at the distance of six inches apart, and the ends of the tube closed; attach this to the under side of the box, crossways, at either end, so as to be out of the way of the wheels of the cart.

"When you come to where the water is to be spread, it is to be let out of the box into the tube, by an aperture for that purpose; and as the cart moves along, the water runs out of each of the small holes in the tube, and thus

sprinkles over a piece of ground of twelve feet wide, till the whole is exhausted.

"With the next load, begin where the water ceased running before, and thus continue the watered strip across the field. Then take another strip of twelve feet wide adjoining that already watered, and thus proceed till the whole has been gone over.

"In this way a man would carry out, say forty cart loads a day, at the distance of half a mile, or half that number if a mile; as but little time need be spent in loading or unloading.—About ten loads of a hundred gallons each would probably be sufficient for an acre at one time."

There can be no doubt but the application of sea-water would prove fatal to cock-chaffers or grobs, cut-worms, &c. Liquid manure of any kind may be expeditiously applied in the way above mentioned. The water from drainings of dunghills, or that which is collected from reservoirs of liquid manure, or from stagnant pools, &c. might well be applied in this way, and answer useful purposes.

SEA SAND, SEA MUD, &c. may be put into corn and potatoe hills in some situations to good advantage. Mr. Wm. Moody, of Saco, Maine, in a letter to the Hon. Josiah Quincy, published in the Massachusetts Agricultural Repository vol. iv, p. 353, says, "I am persuaded, from experience, that sea sand, put under corn or potatoes with manure, or spread on the land, will go far, if not wholly, to the total destruction of those destructive worms [wire worms, which are small red worms about an inch long, the bigness of a large needle] on which nothing else seems to have any effect. It has a beneficial effect spread on land before ploughing, or even after land is planted with corn or potatoes, not only to destroy the wire worm and other insects, but to increase the crop. With my neighbors a load of sea sand is considered preferable to a load of their best manure, to mix in with their common barn manure, or to spread on their gardens and low flat land."

Fastening for Doors and Window Shutters.

We have understood that a person in East Bradford, (Mass.) has invented a contrivance, which is very simple in its nature and effectual in its operation, to fasten window shutters and outward doors, both back and when closed.—This implement becomes fast of its own accord, and will be found to conduce much to the ease and comfort of those who may be inclined to adopt it. The expense hardly exceeds that of a common hasp. It is not a patented machine, and has already been put in operation in several buildings, and perfectly answers the purposes for which it was intended.

THE GREAT RACE.

Perhaps nothing has ever occurred in the United States which has given so violent a fillip to public curiosity, and set expectation so decidedly on tip-toe, as the wonderful horse race lately enacted at Jamaica, on Long Island, between the super-superb N. York horse cyleped Eclipse, and the extra-eminent Virginia courser known by the appellation of Henry. The race ground was crowded with spectators, some say not less than from 40 to 50,000, some of whom, if fame does not tell fibs, came no less than five

hundred miles to be witnesses of the contest between the glory of the North, and the pride of the South! Mr. Niles, editor of the Weekly Register, says, that "the cost of travelling and other expenses of the strangers, may be fairly estimated to have been a million of dollars—and the value of the time and money of all, wasted or expended, cannot be supposed at less than two millions. The amount of the bets can only be guessed at—it is very possible that they exceeded a million; for the "sporting world," from the extreme East to the extreme West, and the extreme North to the extreme South of the United States, was engaged in this affair! Few have gained much by it—but many have lost what should have went to the payment of their just debts, and are ruined."

According to the best authenticated accounts of this most memorable matter, Henry beat Eclipse the first heat by about half a length. The second heat Henry took the lead the first and second mile, but in the third Eclipse passed him and came out several lengths ahead. In the third and decisive trial, Eclipse led between two and three lengths. In the third mile Henry came up within about half a length of his rival, but in the fourth and last mile Eclipse maintained his ascendancy, and came out a length and an half ahead, thus winning forty thousand dollars, the principal bet, besides nobody knows how many bye-bets, and about as much renown (more or less) as the Duke of Wellington won at Waterloo.

The following is stated to be the time of running:

First heat	7 minutes, 40 seconds.
Second do.	7 do. 49 do.
Third do.	8 do. 24 do.

This is said to be the greatest speed on record for a long time. Goldsmith says, (Animated Nature, vol. i, p. 432,) "An ordinary racer is known to go at the rate of a mile in two minutes; [probably for a single mile] and we had an instance in the admirable Childers of still greater rapidity. He has been frequently known to move at the rate of 32½ feet in a second, or almost a mile in a minute; he has run also round the course of New Market, which is very little less than four miles, in 6 minutes, 40 sec. But what is very surprising, few horses have been since found that ever could equal him; and those of his breed have been remarkably deficient."

ARTILLERY ELECTION.

On Monday last the Ancient and Honorable Artillery Company, commanded by Brig. Gen. Lyman, celebrated its 135th anniversary. At noon the company escorted his Excellency the Governor, and numerous officers of the State Government, and that of the United States, to the Church in Chauncey Place, where an eloquent and appropriate Discourse was pronounced by Rev. Dr. Gardiner. After the religious

exercises, the assemblage moved to Faneuil Hall, where an excellent dinner was provided, of which more than 300 persons partook. After having drank a number of appropriate toasts, the company marched to the common and elected their officers for the ensuing year.

AGRICULTURAL PROSPECTS.

We learn from a number of sources of information, as well as from personal observation, that the summer has commenced with a flattering appearance of a fruitful season. The plentiful rains, together with an atmosphere in general somewhat chilly, has caused grain and grass to set well, or be very thick at the bottom. The tardiness of Spring has kept back the budding and blossoming of fruit trees till the season has made such progress that frost will not be likely to destroy the blossoms or fruit; and, should the smiles of Providence be continued, this year will be crowned with more than customary plenty.

MASSACHUSETTS LEGISLATURE.

Hon. James L. Hodges was chosen Senator to supply the vacancy in Bristol county. Rev. Mr. Jenks, of Boston, was elected Chaplain of the House of Representatives, and Rev. Mr. Walker, of Charlestown, Chaplain of the Senate.

A committee of the Senate reported a resolution, which was unanimously accepted, expressing "the high sense they entertained of the urbanity, integrity, and wisdom of their deceased colleague," Hon. John Phillips, "and of the great respect which is due to his memory for long and valuable services in many public offices of great responsibility and honor, and more especially for the distinguished ability with which for a series of years, he has discharged the duties of President of the Senate of this Commonwealth," &c.

In Convention, the following gentlemen were elected Counsellors, viz: William P. Walker, Esq. Jesse Putnam, Esq. Hon. Marcus Morton, Nathan Chandler, Esq. David Cummins, Esq. Hon. Thos. Weston, Hon. Solomon Smead, Ebenezer Fisher, Esq. and Abraham Lincoln, Esq. who have accepted and been qualified.

George Sullivan, Esq. was elected Senator to supply the vacancy in Suffolk District.

On Wednesday, pursuant to assignment, the two houses met in Convention for the purpose of receiving the communication from his Excellency the Governor. The Governor and Lient. Governor, attended by the Council, the Secretary of the Commonwealth, and the Sheriff of Suffolk, then came in, and his Excellency delivered a Speech from the Chair. The Convention then separated.

FOREIGN.

A late arrival at New York, has brought London dates to the 23d of April, one day later than had before been received. The head quarters of the Duke d'Angouleme, according to accounts from Bayonne of the 20th of April, were at Vittoria. The French had captured Pancorbo, and found in that place 31 pieces of cannon, with bombs, shot, &c.

In the British Parliament, the unwarrantable conduct of the invaders of Spain was animadverted upon with much severity, and motions were made for papers and information relating to the aggression. On the 22d of April, Mr. Caning declared that he knew of no agreement entered into by the Allied powers at Verona, to assist France in carrying on hostilities with Spain, and did not believe that any instrument was

signed for that purpose. In the House of Lords, on the same day, Lord Liverpool stated that if Portugal was attacked without provocation on her part, England would be obliged to assist her; but if Portugal provoked an attack, Great Britain was under no obligation to interfere. Lord Liverpool likewise stated that there was a prospect that Austria would make arrangements to pay a part, if not the whole, of a great loan made to her some years since by England. The Emperor, he observed, has become a bankrupt, and intends making a composition with his creditors; but he had not seen his name in the Gazette. Of course he cannot be entitled to a certificate, according to law in such cases.

Ireland is in a state of great commotion. A large proportion of the lower orders appear to be making war on society at large, and to have sworn hostility against all kinds of property. Having suffered for want of provisions, they now destroy every thing they can lay their hands on, which might otherwise serve for food for man or beast. They are like petulant children, that quarrel with their bread and butter. If oppression has driven this wise people mad, their oppressors have much to answer for. Burning houses and stacks of grain, killing cattle, and laying waste the country, seem to be the order of the day, and the amusement of the night; and the equality which is aimed at appears to be that dead level of misery, in which all are consummately and equally wretched.

The Pirates exterminated.—Havana letters of the 17th May, announce that the troops sent into the interior, and on the coast, to destroy the pirates who had taken shelter there from American and British cruisers, and renewed their depredations on land, have been very successful, and have swept the haunts of those marauders.

DOMESTIC.

Fine Milch Cow.—The cow which took the premium at the Cattle Show in Connecticut last fall, was raised by Mr. Benjamin Bishop, 2d. of West Hartford, from the stock of Mr. Ozem Woodruff. The actual weight of her milk from May 22, 1822, to April 1. 1823, was eighty-nine hundred and ninety-three pounds, or 1000 gallons—equal to thirty barrels.

Precautions against Disease.—The Board of Health in New York have adopted some regulations to prevent among other things the casting into the streets of garbage, vegetables and offals. They are ordered to be kept on the premises until the bell cart calls, or thrown into the river, under the penalty of two dollars; and it is directed that the gutters in front of every building and lot during the months of May, June, July and August, shall be washed and cleansed twice every week, under the penalty of two dollars.

Good green oak wood (says a Philadelphia paper) is now selling at our wharves at \$3.25 a cord. This low price is attributed to the discovery of coal, and the facilities afforded by water carriage.

Norwich, (Con.) May 28.

Awful Tempest.—On Sunday afternoon this vicinity was visited by a thunder storm which prostrated several barns, fences, trees, &c. and occasioned other destruction. At Montville, while the Rev. Pastor of the Church in that place was directing the attention of his flock to the tempest, by reading the hymn which begins: Methinks the last great day has come, Methinks I hear the trumpet sound, That shakes the earth, rends every tomb, And wakes the prisoners under ground,

a bolt of lightning struck the cupola of the meeting-house, shattered the belfry, shivered several of the posts and pews in the interior, and instantly killed Mrs. Bradford, a widow, aged 72, and Mary Comstock, a child of nine years of age, and injured several other persons. There was no conductor to the house; and the vane was supported by a piece of iron, which it is supposed attracted the lightning. Another meeting-house was struck about the same time, and the lightning being conducted by the rod, did the building no injury.

Captains Rodgers, Chauncey and Morris, are on a visit of inspection to the northern naval posts.

AGRICULTURAL ESTABLISHMENT,

NO. 20, MERCHANTS' ROW,

(At the East End of the Old Market.)

FOR sale as above, a variety of the most approved single and double mould board Ploughs, C. Howard's improved cast iron mould board, with wrought Shear and Coulter, Cast iron do. do. do. J. Seaver & Co's. do. do. Bigelow's wrought do. do. Warren's much approved common Ploughs, Sinclair's side hill do. do. do. Howard's much improved Cultivator, an implement highly esteemed for its utility in drill cultivation. Bennet's Broad Cast, Seed Sowing Machines, for large and small seeds, Eastman's improved Straw Cutter, Safford's new invented Straw Cutter, much improved, Common hand Straw Cutters, An English Vegetable Cutter, Stevens' patent steel spring Hay and Manure Forks, Steel spring Potatoe Hoes, English cast steel broad Hoes, Common and steel do. do.

A great variety of Garden and other Agricultural Implements. June 5.

PRICES OF COUNTRY PRODUCE, &c.

[Revised and corrected every Friday.]

		FROM	TO
		D. C.	D. C.
ASHES, pot, 1st qual.	ton.	155 00	160 00
" pearl do.		155 00	160 00
BEANS, white,	bush	1 00	1 10
BEEF, mess, 200 cwt.	bbl.	9 50	9 75
" No 1,		8 50	8 75
" No 2,		7 00	7 25
BUTTER, inspect. 1st qual.	lb.	12	13
" 2d qual.		10	11
small kegs, family,		14	15
CHEESE, new milk		7	9
FLAX		8	9
FLAX SEED	bush	85	90
FLOUR, Baltimore, superfine,	bbl.	7 75	7 87
Genesee		7 62	7 87
Rye, best		4 87	5 25
GRAIN, Rye	bush	72	75
Corn		63	65
Barley		65	70
Oats		40	42
HOGS' LARD, 1st sort	lb.	9	
HOPS, No 1,		10	12
LIME,	cask	1 25	1 50
OIL, Linseed, American	gal.	65	
PLASTER PARIS	ton.	3 00	3 25
PORK, Navy Mess	bbl.	12 00	12 50
Bone Middlings		14 00	14 50
Cargo, No 1,		12 00	12 50
Cargo, No 2,		11 00	11 50
SEEDS, Herd's Grass	bush	2 00	2 25
Clover	lb.	8	9
WOOL, Merino, full blood, washed		55	65
do do unwashed		48	50
do 3-4 washed		50	55
do 1-2 do		40	45
Native		38	40
Pulled, Lamb's, 1st sort		55	60
do Spinning, 1st sort		50	55

PROVISION MARKET.

BEEF, best pieces	lb.	8	9
PORK, fresh		7	8
VEAL,		6	8
LAMB, per quarter		47	50
POULTRY,		10	12
BUTTER, keg & tub		14	15
lump, best		16	18
EGGS,	doz.	12	13
MEAL, Rye,	bush	75	80
Indian,		75	
POTATOES,		40	45
CIDER, liquor,	bbl.	1 50	2 25
HAY, best,	(ton.)	20 00	22 00

From the Hancock Gazette.

POT-LUCK.

Yankees are fam'd for "everlasting dinners,"
So call'd by John Bull's gormandizing sinners.
Whene'er of such a Frenchman comes in view,
He cries at once with wonder—"O, mon Dieu!"

The Yankee still is modest and polite;
And when a favorite guest he would invite,
'Tis, "come and dine with me, good sir, to-day,
In a snug, family, familiar way;"—
Or, "take *pot-luck*; I promise not a treat;
But commonly can something find to eat."

A traveller once from France, all nice and pretty,
Arriv'd in famous Boston town—now city;
Call'd at a merchant's counting-room, and there
Says, "Sare, me have one letter to you sare."
The merchant o'er it cast a careful glance,
And found 'twas from a faithful friend in France.
"Dear sir," says he, "call in at four and dine
With me on *pot-luck*, take a glass of wine,
Then at our leisure we can talk the better
About the contents of this pleasing letter."
"Sartain, good sare, my compliments I pay;
Sartain I call," then bow'd and went away;
Thinking in French, "what is this *pot-luck* dish?
Is it made up of flesh, or fowl, or fish?
It sure must be a dainty in this nation;
I'll dine agreeable to invitation."

The Frenchman watch'd; and when the clock struck
four,
He gave four knocks upon the merchant's door;
Was usher'd in;—by all was kindly greeted,
Soon at the table honorably seated;
A table groaning with a vast variety,
Where gluttony might stuff e'en to satiety.

Says merchant to the Frenchmen, "Sir, you see,
We treat our friends *sans cere-mo-ni-e*.
What from this quarter shall I to you pass?
There's a boil'd turkey here, and oyster sauce.
Sir, you must look about you—there, by ma'am,
Are some boil'd chickens and a decent ham."

"O sare, me take von very leetle piece
Of ham and shicken, sare, if madame please,"
'Twas handed, and he nibbled, as unable
To relish any thing upon the table.

This course remov'd, another soon appear'd,
Which even Epicurus might have cheer'd;
Roast turkey, goose, ducks, chickens, partridge, brants;
The merchant fell to carving—"Come, who wants
A piece of this, or this, or that, or t'other?
I'll help each guest as tho' he were my brother."

The Frenchman nibbled, as he did before,
But look'd as though expecting something more.
Next in came puddings, custards, jellies, pies;
He nibbled still, and star'd with wondering eyes,
When told on there he must attempt to dine,
As there was nothing more, but fruits and wine.

"No more!" cries Frenchmen; "den I plainly see,
I make mistake, kind sare; you pardon me;
Your language I no understand; O, vat luck!
I wait'd all dis time to dine on *POT-LUCK*!"

From the United States Gazette.

HYDRAULICKS.

Description of the Tools used in Boring for Water.

"The first tool used is an auger; the shell part, which forms the hole or bore in the earth or strata thro' which it passes, is mostly from 2½ to 3 inches in diameter; the hollow part of

it being about one foot four inches in length, and constructed nearly in the form of the carpenter's common auger. The rod parts are formed in separate pieces, of four feet long each, which screw into one another by means of what is usually termed a male and female screw, to any suitable length, one after another as the depth of the hole or bore may require. The size of the stem above the auger part is about an inch square, except at the joints, where, for the sake of strength, they are a quarter of an inch more. There are also a chisel and punch for screwing on, in going through hard gravel or metallic substances, in order to expedite the passage of the auger, which could not otherwise perforate such hard bodies. The punch is often used when the auger is not applied, to pierce or open the sand or gravel, and give a more easy issue or discharge to the water. The chisel is an inch and a half or two inches broad at the point, and made very sharp for cutting stone, and the punch an inch square like the other part of the rods, with a sharp point also. There is a shifting handle of wood which is fastened with two iron wedges affixed to it, for the purpose of turning round the rods in boring, and also two iron keys for screwing and unscrewing the rods, and for assisting the handle when the soil is very stiff, more than two men being required to turn the wheel; sometimes a windlass is used. The manner of using the auger in working it, is simply thus: two or three men are necessary. Two stand on a stage, erected about 12 or 14 feet above the ground, who turn it round by means of a wooden handle, and when the auger part is full, they draw it up out of the hole, and the man below clears out the earth with an instrument for the purpose, and assists in pulling the auger up out of the hole or bore, and in directing it into it again, and can also assist in turning with the iron handle or key, when the depth and length of the rods require additional force to perform the operation. The workmen should be careful in boring, not to go deeper at one time, without drawing an exact length of the shell of the auger, otherwise the earth, clay or sand, through which it is boring after the shell is full, may make it difficult to pull out. A cylindrical pipe being placed in the hole and driven downward with a mallet, and the boring continued, the pipe may be forced down to a greater depth, so as to reach the water or spring. Wells made in this manner are superior to those constructed in the common method, not only in point of cheapness, but also by affording a more certain and constant supply of water. In case the water near the surface should not be of good quality, the perforation may be continued to a greater depth, till a pure fluid can be procured.

The pipes should be either of cast iron, or other metallic substance, and made to fit, with great exactness, the aperture made by the boring auger, or they would not be durable, but speedily become leaky and out of order. The best mode would therefore probably be that of having metallic pipes cast for the purpose, and formed so as to fit exactly upon each other, to any depth that might be necessary in boring for water. When old wells have become injured or tainted from any circumstance or accident, being previously emptied, the bottom may be perforated in a similar manner, so as to

reach the lower sheet of water or main spring. The water will then rise in the cylindrical tube in a pure state, and flow into the body of the well or pump fixed for the purpose of bringing it up."

From the Providence Gazette.

A machine for removing the sick has been invented by Mr. John C. Jenckes, of this town, which, where it has been in operation, is pronounced to be of great utility. A person confined to his bed, may by this machine be raised with perfect ease to himself, and with little effort or labor on the part of attendants, to such a height and for such a time, as to give an opportunity for making the bed and for changing the linen; and in warm weather the patient may be much refreshed by being raised and kept at a distance from the bed. The motion is so regular and easy that it is stated a person asleep may be raised without being awakened. A committee of the Association of Mechanics and Manufacturers of this town, having examined the machine, made a favorable report respecting it; and by the recommendation of that committee, the Association have ordered one to be procured for the use of the members.

From the Detroit Gazette.

COAL.—There has lately been discovered in the vicinity of Flint river, in this territory, a quarry of Slate Coal. We were furnished with a specimen of it, and found that it burned easily on applying the blaze of a candle to it. Its grain is very fine, and it does not soil even the whitest paper when rubbed upon it. The flame which it produces is considerable, and of a white appearance, and the effluvia of the smoke is much like that which is thrown out by the English cubical coals, used in some of our commercial cities. Its ashes are white, and not abundant, and from its durability and heat in an igneous state, it is believed that this coal will become, in a short time, an article of consequence to the people of the territory.

We have been informed that the quarry is of considerable extent, and that gentlemen have already gone to examine it.

Saint Foix tells a story of a young woman, who, on a promise of marriage, suffered herself to be seduced by her affection and the tears and intreaties of her lover. He immediately after became rich and broke his promise. Her relations, in spite of her opposition, sued the seducer, and he was condemned either to marry her or pay her one thousand francs. When they came to announce to the high-spirited girl the result, "I refuse both," said she; "I will neither sell my virtue, nor be the wife of a scoundrel." She took the veil.

TERMS OF THE FARMER.

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NEW ENGLAND FARMER.

PUBLISHED BY THOMAS W. SHEPARD, ROGERS' BUILDINGS, CONGRESS STREET, (FOURTH DOOR FROM STATE STREET.)

VOL. I.

BOSTON, SATURDAY, JUNE 14, 1823.

No. 46.

FACTS AND OBSERVATIONS RELATING TO AGRICULTURE & DOMESTIC ECONOMY.

BY THE EDITOR.

ON THE SITUATION AND CONSTRUCTION OF BARNs.

The observations and directions of foreign writers on husbandry, relating to this branch of rural economy, are very copious. Some valuable ideas for an American farmer may be expected from the mass of matter, though the greater part is not adapted to our climate and circumstances. The following remarks were written by Mr. Samuel Gibson, an intelligent Pennsylvania farmer, "who to the experience of an excellent practical agriculturist, adds that of an active and ingenious mechanic, and who has erected a spacious barn, which is esteemed, by competent judges, a model of neatness and convenience."* His opinion in general, on the construction of such a building of stone, sufficient to accommodate a well cultivated farm of 100 acres, 40 of which may be supposed to be good land, is as follows:

"The situation should be as near the middle of the farm as can conveniently be, and on ground sloping towards the south, so as to admit water being brought through wooden pipes, in the ground above, and raised in the yard practicable, or at least that it may pass through the yard. The site should not be nearer than 100 yards from the dwelling-house, as in case of fire breaking out in either, the other might be safe; it also conduces to cleanliness, and where any of the family happen to be sick they will not be disturbed by the noise of the barn, stables, &c. The dimensions might be 70 feet by 36; the hill dug up upon a level, and the earth removed from the barn yard. The building to be of stone; the foundation sunk two feet below the level; the walls two feet and an half thick at bottom, and to continue so to the height of the stable doors; the ground so much sloped as to be five feet high when the hill is cut down, and a wall raised close to this, at the distance of seven feet from the barn; this intermediate space would admit a free circulation of air round the barn and stables below; over this a gangway is to be raised, leading into the barn floor; an excavation may also be made in the hill under this, to which a door through the aforesaid wall may conveniently lead, which will form a very suitable place for stowing away potatoes and other vegetables. The stables to be seven feet in height clear; and the wall two feet thick, set right in the middle of the wall below; from that to the rear of the barn the thickness may be reduced three inches on each side, and carried up 20 feet above the stables. Above this the gable ends may be raised 15 feet, which will give sufficient slope to the roof, which ought to be covered with the best cedar shingles or slate. The ground area below may be divided into four spaces for cattle, horses, &c.; none of which divisions ought to be less than 12 feet wide, with an entry between the two rows of creatures

whose heads should be towards the entry. The foundations of the partitions, a stone wall 18 inches thick, rising 10 or 12 inches at least above the floor, on which a frame of wood work should rise to the joists. The stable floors paved with pebble stones, descending from the troughs, with a like descent towards the door. The advantages of such a floor are, that it will not harbor rats and other vermin, and is durable; the hardness ought to be no objection, as plenty of bedding should be furnished for the purpose of increasing the quantity of dung. Raise the barn floor seven feet above the bottom of the hay-mow, which will leave 12 feet for the height of the barn floor, which ought also to be its breadth. The advantages of raising it thus are many; the labor of pitching your hay is very much reduced; you acquire a good room between that and the stables for stowing grain, &c. The labor of raising the entrance to the barn floor is trifling in comparison of what the labor of pitching it would otherwise occasion; and if the ground rises with a considerable angle, backwards, the difficulty of raising the gangway will be still less. The barn floor should be laid with three inch oak plank, well seasoned; each plank ploughed with a half inch iron, within an inch of the lower edge, and a strip put in each point, which will keep the whole firm and solid, and effectually prevent dust, &c. from getting through; it might also be an advantage to have glass windows in the granary, and back of the barn floor, the sides of which may be defended by the boards which form the sides of the granaries, next the hay mows, and ought to rise four feet above the thrashing floor. Fixed ladders on each side of the barn floor are also convenient to get at the hay above. In each bay now a square hole of four feet must be run up, from the entry below to the top of the mow, and framed to prevent the hay from stopping it up. These may serve a two fold purpose, that of conveying hay down to feed with, and as ventilators. It may also be observed that the stable and entry doors ought all to be arched, and the hinges and fastenings of all the doors of iron built into the wall in the simple form of hooks and eyes, the hook making part of the hinge; the stable floor should also be as high as the sill of the door, and ascending back.

"Round stone pillars, two and an half feet in diameter, may be raised at equal distances from each other in front of the stables, and eight feet apart; these may be made as high as the stable floors, upon which a frame might be erected to such a height as to be conveniently covered by the general roof; which would form an excellent corn house, and would also shade the stable floors. Steps should be placed under this frame leading into it, and also into the granary under the barn floor. This frame or corn house, should be so high from the ground as to admit a cart or waggon below it; and should also have an opening in the floor to pour the corn down. The main entry to the corn house to be through the thrashing floor.

"A barn built upon these principles would produce a saving of at least one hand daily, in the single article of pitching hay, as one person

may haul and tumble into the barn as much hay as three could stow away in the usual way, which is of considerable consequence in harvest time, when work is pressing. One man will pitch the hay from the waggon on the barn floor, up to the whole square of the barn, as fast as two or three can stow it away; whereas, in the common way of building barns it would take two to pitch it up. Indeed it might be questioned whether it would not be an advantage to raise the floor still higher, on this account, as pitching hay is the hardest part of stowing it away; this would also increase the size of the granaries. To this some object, on account of its rising above the square of the barn, but this is nothing when put in competition with the advantages to be derived from the facility of pitching, as the roof may readily be formed so as to admit of it.

"Objections have been made against stone barns, as not being sufficiently airy, and being damp, so as to injure the grain; inconveniences more imaginary than otherwise, and which the writer of these observations has never experienced; but which, if they did exist, might soon be remedied by plastering the outside of the north-east end of the building, and projecting a penthouse from the square, which if attended to, and a sufficient number of windows left, all of which that are under the eaves, and otherwise not exposed, having Venetian blinds, with a large ventilator on the top of the roof, on which may be fixed a lightning-rod; such precautions will most assuredly prove the superiority of such a stone barn to all others."

It is not probable that more than one in a million of our New England farmers, would and could build a barn altogether according to the plan mentioned above. But some hints might, perhaps, be gathered from it, which would prove useful in erecting a building which is of so great importance to a farmer. We believe it may be well, in general, so to construct a barn that carts or waggons may be drawn in on the second floor, which may be situated at any commodious distance above the ground floor, or on a level with what New England farmers call the *scaffolds*. The second floor may contain the sheaves of grain, and a part of the hay. If no side hill exists in the place where it is wished to build the barn, (according to Mr. Gibson's plan) a bridge or causeway may be made, commencing on the ground at a proper distance from the barn, and terminating on the second floor, by which loads may be conveyed. It will be very convenient if the whole is so contrived that teams may be driven in at one door and out at another opposite, instead of having to submit to the awkward process of *backing out* the unloaded cart or waggon. Cellars to barns, under planks which are placed on sills or sleepers and form the floors of the stables or cattle stalls, are becoming fashionable in New England, and are no doubt very convenient and economical. Into such cellars the dung of the stables can be shovelled with very little labor; and if this can be so constructed as not to freeze, and have room for holding mud loam and other materials for making compost to be deposited in

*American edition of Rees' Cyclopaedia, Art. BARN

them, in autumn;—those materials may be mixed with the dung in the winter, and the process of making compost, carried on in the coldest weather. The liquid manure of stalled cattle &c. by that mode of management might be imbibed by earth, &c. in the compost; and the products of fermentation secured and turned to account. By this or similar modes of proceeding a farmer may more than double the quantity and greatly enhance the quality of his barn manure.

FOR THE NEW ENGLAND FARMER.

CUCUMBERS.

I have many times dug a hole in the earth about two feet deep and two in circumference, nearly filled it with straw or old hay, and then covered it over with small stones. Around this hole, and about three inches from the edge, planted cucumbers; and as they grew and began to vine, stuck in bushes, such as are used in sticking peas, all around the cucumbers, on the out side, about nine inches from the roots. These bushes are stuck in slanting so that the top end would rise about a foot from the earth. As the vines advance, put another row around in the same way, beginning about half way between the top ends of the first and the place in which the but ends were put into the ground; and then a third row, and so on as circumstances require. From one such hill I have had gathered at one time near two pails full of cucumbers; and the vines will continue to bear much longer than those planted in the usual way and suffered to run directly upon the ground. The advantages of the hole, straw and stones, are these. The degree of wet is almost entirely under the control of the gardener; and the vines saved from the inconvenience often experienced from turning water upon them. If it is a dry season, and the soil dry, a pail full or more of water may be turned into the hole at once. P.

FOR THE NEW ENGLAND FARMER.

A SURE WAY TO DESTROY CATERPILLARS.

Many ways have been devised to destroy caterpillars on trees, such as the application of spirits of turpentine, live ashes, burning brimstone, &c. I have tried all these remedies, but never had much success; they effect a partial, but not a total destruction of them. They may be driven from their nests, torn to pieces, and some of them may be killed; but those that are not destroyed are sure to collect on another limb and renew their attack upon the defenceless foliage. The most effectual way that ever I have tried, is to blow them "sky high," with a gun or pistol—this will destroy them. The way that I work it is to put the powder into the gun without any wad, and hold the muzzle within about a foot of the nest in such a position as to range the whole of it, and then discharge it;—this will clear the limb of nest, worms and eggs. This method is not so expensive as some may imagine. A pound of powder which may be bought for about two shillings, will destroy 75 or a 100 nests, and the gun or pistol would be more useful in this business, than when in the hands of the fowler, or in those of a Southern duellist. S.

It is said the most violent hæmorrhages may be stopped by the volatile flour of alkali.

From the American Farmer.

JOHN S. SKINNER, ESQ.

Dear Sir,

So much has been written and said, about "Improved Short Horns," that there is little to be given by me in their praise, but the results of my immediate observation. I had ample opportunities abroad, I have most sedulously availed myself of all the means within my reach at home, to obtain accurate information on the comparative merits of the various breeds of neat cattle, of which we are possessed. I control more than a thousand acres of alluvial meadow, as well as many farms, and large bodies of wild lands, in Pennsylvania, New York and Maine. I am thus led to mingle with farmers both in this and in other states, to examine their cattle, and ascertain their properties, as well as the products of the soil; whilst my own farm enables me to prosecute any system of experiments, which I may be led to attempt. I have had cattle bred in Kentucky, Maryland, Virginia, Maine, Massachusetts, Vermont, New York, and Pennsylvania. I have traced every importation, of which I had heard. I can distinguish Mr. O'Donnell's, Patterson's, Goughs', and Parkinson's importations for Maryland—the Holstein, Alderney, Irish, Dutch, Flanders, Britany, Pole and short Horn breeds brought into Pennsylvania by Mr. Sims, Cunningham, Rost, Waln, Hamilton, Kettland, Guest, and Haines: the families of various degrees of affinity, to the pure race of "Short Horns," carried to New York by Col. Deveaux, and Mr. Heaton—the Leicestershire, Lancashire, and Hereford cattle, taken to Connecticut, Massachusetts and Maine, by Mr. Wadsworth, Stewart and Vaughan. Of most of these importations I have had individuals, and of all, have carefully examined some of the progeny, either here, or at a distance.

I have possessed an hundred and fifty cows, calves, bullocks, and bulls within three years. I am a member of the society of learned farmers, I have attended cattle shows without number, I have read "Albion," "the Memoirs," and I reside near farms of "large dairies devoted:" thus without boasting of my brilliant accomplishments, or elaborate acquirements, in all that relates to the tail of a sheep, the buttock of a bull, or the bag of a cow, I may venture to state what I and my cattle have done.

For some animals of the breeds, which I designate, I had given great prices; yet the best of them all, I sold for but sixty dollars a head, about the time I gave nearly five hundred dollars for two imported "Improved Short Horn" cows—and from Mr. Williams of Massachusetts procured eighteen or twenty yearlings, and calves by his extraordinary Bull Denton. I have since obtained three imported heifers; for one of them by North Star from a cow by Comet I paid in England five hundred dollars. Among my stock a Chinese and Devon heifer, a yearling and cow from an imported Devon, by an English bull, also heifers and cows bred upon our meadows and mountains have been placed, to decide the questions, which have caused among breeders so much dispute. All my experience has shown, that the extent of excellence in the animal, whether in points, properties, shape, disposition, early maturity, or tendency to secrete fat, or afford rich milk is determined, by the degree of affinity to the pure race of Improved Short Horns. That my Durham cows are deep

milkers, that they are *hardy** have elastic plia hides with thick soft coats, that when dry, they are easily made fat, that whilst yielding milk they become thin, has been proved to my entire conviction. Might not "Albion" be asked whether he did not forget, that although it is difficult to "blow hot and cold at the same time" that it is possible to blow hot in June, and cold in January. The tendency towards fat, proceeds I should presume, from the power of the animal's stomach, and intestines to separate the nutritious, from the excrementitious parts of aliment. Nature wisely destines certain portions of nutritious matter at proper times, the secretion of milk—that milk is an unctuous and very nutritious fluid, cannot be questioned much therefore of nutrition is withdrawn from the milk from the formation of fat—but does follow, that such portions as have made butter or produced fat in the calf, when no longer directed towards the secretion of milk, must necessarily lose all their properties, and pass in urine or in dung? Do we not invariably find that all cows when dry become more ready fat than when they give milk? Is it not to be inferred that the matter which would have passed off in milk, may be made to produce fat? Does not our experience show in all families of wild cattle, where the perverseness of man has not interfered with the dispositions of nature that when kept quiet, and well fed, they exhibit great tendency towards secretions of fat. In cattle even of Asia and China, in the Kyloes of Scotland, in the wild breeds of Louisiana, and in the little mountain cows of America, such disposition is generally shown.

The mistaken ingenuity of the breeders of Holland, whence all the deepest milkers, whether Holderness, "Old Short Horns," Holsteins or whatever they may be termed in America are in some measure derived, carried them into an absurd "cross," affording excessive secretions of bad milk; thus not only prematurely exhausting the animal by which they are given but at all times requiring great quantities of food for her support. That disease, peculiar tendency towards fatness or leanness, or copious supplies of thin, or lesser quantities of rich milk or even the determination of a particular color towards any definite part of the body, as white at the end of a Devon's tail, may be established by perseverance, and art, every man conversant with the subject, will readily believe. Because a Dutchman chooses to wear out his cow, to have a race of animals, which will not readily become fat, even when dry; and the cupid of the venders of milk in the neighborhood of large towns in England, or America, has them to propagate this unthrifty breed of cattle is it to be inferred, that the efforts of Colling and his coadjutors, could not obtain by cross a family, which are fitted at different times for the production of milk, and secretion of fat.

Yours, &c.

CURWEN

Philadelphia County, April 18th, 1823.

* The hardness of this breed of cattle, was forced upon me, on the estate of a scientific and eloquent agriculturist, who in his contempt of the old fashioned method of driving, and ploughing the earth, unluckily left his barns without fodder, and his fields bare of grass, to the great mortification of himself in the last spring, when he emerged from his closet, and discovered that his schemes had all failed, and his cattle had starved, except those of pure "Improved Short Horn" blood.

MURRAY'S System of Chemistry, says "the food is a compound of this kind," &c. "and if I suppose a fluid thus passing through tubes of different diameters, and undergoing successive decompositions, we may easily conceive that very different products may be formed from the same original compound. This affords a simple view of the nature of secretion. No complicated apparatus is requisite for the performance of the change, all that is necessary being the propulsion of the blood through minute vessels, capable of contraction. It has accordingly frequently been observed, that new products are formed without the intervention of glands; such is the formation of the fat or of muscular fibre. It is easy to conceive that the formation of these may take place in the extreme vessels, where these products are deposited; and in like manner, in the mere course of the circulation, may be formed the gluten, albumen, and other principles of the blood itself.—From secretion a variety of products are formed, as the bile, milk, fat, the bony matter, the matter of membranes, and a variety of others.—These complete the formation of animal matter, and comprehend its several varieties. Such are the different steps of the process of animalization. The food is digested in the stomach, mixed with animal matter in the intestinal canal, and converted into chyle: this mingles with the blood, and carries a portion of carbon in the lungs: in the extreme vessels it is converted into the general principles of animal matter; and in the glands, converted into various secreted products."

White, vol. 4, chapter 1, of the formation of the digestive organs of the cow, page 13. "The stomach then may be considered both as a muscular and as a vital organ. If we view it in another light we shall consider it as one continued bibulous surface, sucking up the chyle as it is formed, and conveying it by means of the milk-vessels to the four receptacles which are named the quarters of the udder. There is another order of absorbent vessels in the stomach, and in the small intestines also, especially in the upper part, named lacteals, which ramify through the mesentery, and terminate in the thoracic duct, having previously passed through what are named the mesenteric glands; that is for the most part, for some are seen going over their surface. These lacteals are subsidiary, and occasional to their office, serving to convey chyle when the mesenteric glands are inflamed and obstructed. Chyle, as we find it in the lacteals, is exactly like milk in every respect, and is, in fact, the same thing. The fluid of the thoracic duct is different; it is semi-transparent, has always a little oil floating on it, and is now and then found mixed with a little blood, which probably falls into it after death, from the great vein in which it terminates. This depends on the valve of that part giving way, in consequence of death. Chyle and milk are then precisely the same thing; and in the cow there are three thoracic ducts, two going to the udder and conveying milk, and one to a great vein near the heart, conveying that fluid from which the blood is formed. When the animal has young, the lactiferous vessels, for so the minute branches of the two former thoracic ducts should be named, have a predominant aptitude to absorb the chyle, and a sufficient quantity only is taken up by the chyloferous vessels going to the third thoracic duct to supply the heart."

NOTE.—The Editor takes the liberty of adding the following extract from a letter from Col. Edward Lloyd. Speaking of the Improved Short Horns, Champion, Shepherdess and White Rose—sent in by Mr. Charles Champion of Blythe, Nottinghamshire, England, Col. Lloyd observes "I found Champion and the heifers in fine order on my return; they were, and still are too fat. I assure you that Shepherdess reduces *but slowly*, although I feed her alone on *corn tops*—and Champion is still too fat, although I have reduced his feed to a half gallon of meal per day. Their *fattening qualities* far exceed my expectation, and are almost incredible."

Note by the editor of the New England Farmer.—The foregoing is the production of a very distinguished agriculturist, whose science and practical information place him among the first of the foremost of American agriculturists. It contains much valuable information, not only as respects facts, but theory, relative to improving and improved animals of that species which is the most valuable of any which have ever submitted to the dominion and ministered to the necessities of man. It may not be amiss to observe, that Col. Jaques, of Charlestown, Mass. possesses the "Improved short horns," which are the object of Mr. "Curwen's" merited encomiums, in all their purity. The bull Cælebs is a descendant from the famous bull Comet, the same remove with the "extraordinary bull Denton." Denton and Cælebs are both grand-children to that celebrated sire of fine cattle. The merits of the latter are probably as great, and (at least in this vicinity,) are as highly appreciated as those of the former. Cælebs, we are told, has, every season, 50 cows, at 10 dollars each, a fact which proves our agriculturists are not insensible to the merits of that valuable animal.

The following is extracted from an able Essay, entitled, "*Remarks on the Agriculture of Massachusetts*," published in the Massachusetts Agricultural Repository, vol. v, p. 317.

George Adams, in his Treatise entitled "The New System of Husbandry," develops his mode of managing an acre, which, according to his statements and calculations, is equal, in result, to raising food enough in one season, on one acre, to keep one cow 1089 days, which is three years, wanting only six days!! We shall not vouch for the actual experiment, to the extent stated. His mode, however, is unquestionably excellent, and the product must be great, even should it considerably fall short of the amount he asserts.

His mode is this:—

His cattle are kept in houses in winter and summer, so contrived as to save both dung and urine. He plants in the fall, or as early as possible in the spring, drumhead cabbages, in rows, three feet wide in the rows, two feet between the plants; that is, three plants in every square yard. Thus an acre will contain 14520 plants. If the land be poor the plants ought to be nearer. On good land in the English climate, they ought to weigh fifteen pounds each, upon an average, by the first of June. This is equal to 217,000 pounds, or one hundred and eight tons to the acre. He allows each beast thirteen cabbages and 1-4th or 200 lbs., for every day and night. The product of this acre, then, will keep twenty head of cattle fifty four days; or one head, one thousand and eighty-nine days—nearly three years.

Adams' system is connected with soiling cattle, or keeping them in houses during the whole summer, and is capable of still farther extension. For he states his practice to be carefully to cut off the cabbages by the head, leaving their stalks cut across at the top, to grow again.

As soon as a few rows are cleared off, he spreads the dung and urine carefully over the ground. The cabbage stalk, being left, will soon sprout again. Then with a small hoe he cuts the ground over, so as to cover the manure, and sows turnips among the cabbage stalks. He continues to do this until the whole ground is gone over. He asserts that, in that climate, by the first of November he has as great a product, as at first.

In this way, land is improved by bearing crops, and one acre of land made to keep twenty horned cattle 108 days, or three and a half months!!

Without vouching for the result of this experiment, in the extent here specified, it is simple and practicable enough to enable any one to satisfy himself of the greatness of its product, and must have a strong tendency to awaken the attention of practical farmers to the subject.

From the Old Colony Memorial.

THRESHING MACHINE.

A writer in the Memorial of Feb. 22, wishes to know whether there has not been a machine invented for threshing English grain, which will bear the test of experience. The following is offered in reply.

A machine has been invented by Timothy Howe, Esq. of Turner, (Me.) which he has denominated *Howe's Improved Threshing Machine*, for which he has obtained letters patent, dated December 3, 1822.

This machine is said to unite *durability with cheapness and simplicity*, and to answer the purpose of threshing admirably well. It operates with convenience in a common barn floor, and threshes as fast as one hand can fairly untie the bundles and put them into the machine.

The right for the counties of Plymouth and Bristol in this state, and for the state of Rhode-Island, has been purchased by an enterprising young man in Middleborough, who is erecting a machine for the inspection of those who may wish to examine it, and to exhibit its usefulness at the approaching harvest. Though patented, this machine is within the reach of every practical farmer, as the cost of making, together with the right for using one machine, will not exceed \$25, and it may be so constructed that it can be removed from one place to another, so as to serve for several neighboring farms. If we may judge from the rapid sale of the right for making, vending, and using these machines in various parts of the United States, we believe it must be a very valuable invention; and it is confidently trusted that the hopes of agriculturists will not be disappointed by this machine's being "withdrawn into obscurity and oblivion."

Middleborough, May 13, 1823.

C.

To prevent Fishing lines from rotting.

Never wind your lines on your reel wet; at least, when you get home, wrap them round the back of a chair, and let them be thoroughly dried, otherwise they will soon rot, and cannot be depended on; with this care they will last a considerable time.

From the Poultney, (Vermont) Gazette.

Messrs. Smith & Shute—

As I recently caused to be published in your paper, some remarks on the subject of Dairying, perhaps it will not be inexpedient to offer a few observations in support of the theory therein contained. Considerable diversity of opinion seems to exist concerning the manufacture of butter; and the query seems to rest—whether it is not, the most effectual means of giving it a preservative quality, when made, by cleansing it from the milk, with water. A few reasons may be deduced, which, to me, together with considerable personal observation, appear conclusive, in favor of cleansing it with pure spring water.

In the first place, it is a fact, which it needs no argument to establish, that so long as there is any part of the acidity of the milk retained in the butter, it cannot be preserved; and I conceive it to be beyond a possibility, to cleanse it from this acidity, except through the aid of water. This may be proved by simple experiment:—When the butter is churned, let it be thoroughly worked over, so that the milk is apparently entirely out—then thrown into clear water, and it will be discovered that the water will become white and sour with the milk.—This, then, simply shows, that the sourness cannot be got out by working only.

It is thought, by some, that by washing, the water takes away the goodness of the butter.—But if any of the goodness can be washed away, why is it not done with the brine, which is generally added to preserve it? Every one must know, there is no affinity between oil and water; and such is the nature of butter. By letting the water, in which the butter is washed, stand for a time after being used, it will be easy to discover what part or quality of the butter is taken out; as it will gather upon the top—which will convince any one, that there is nothing taken from it which should not be.

It is the general practice of those who put down butter to keep, to put it down in brine, which I consider the best method of preserving it; and unless it is cleansed from the milk, this brine becomes a butter-milk-brine, and will not preserve it from rancidity—so it is when the butter is not put into brine, the salt mixing with the particles of sour milk left in the butter;—whereas, on the contrary, if the butter is washed in pure water till it runs clear from it, the little particles of water which are retained in the butter, when salted, assist to dissolve the salt, and become, of themselves, pure particles of brine, interspersed throughout, which will effectually preserve it. Now, if brine be a preservative, which is universally acknowledged, of what consequence is it, in what manner it comes into the butter, provided it is pure and clear when it gets there;—whether it be added after the butter is made, salted, and carried to the merchant, or at the time it is made? It seems very rational, that the sooner the butter is rest of the sour milk, and a pure brine takes its place, the better it is.

In hot weather, butter is frequently brought to market full of little hard specks of coagulated milk. This is thought by some, impossible to prevent;—but it may, in a measure be remedied, by often stirring the cream, after skimming; and what remains may be entirely got out by washing. The cream, however, should never

stand till this coagulation so forms. Butter being of a concrete substance, the union of its constituent parts is formed with difficulty, through the imposing barriers, conjunct with its original state; and these are scarce ever so entirely removed, but that something of an acid nature remains in it. Let the butter be sweet when churned, and every acid substance removed from it by washing, and it will not, with facility, inhale from the atmosphere, that substance which, being cherished, as it lights upon the surface, by particles of acidity, creates that fœtid, offensive flavor, usually called *frow*.

Rancid butter is said to be one of the most unwholesome and indigestible of foods;—and if there can be any improvement upon the manner of preserving it, it will not only prove beneficial to the general health, as an article of consumption—but will enhance its value, as a market commodity. A. B.

From the Dutchess Observer.

MR. BARNUM—The season will soon arrive when almost every farmer can save his own Timothy Seed, and that at an expense of not more than seventy five cents per bushel, while the market price is generally from 4 to 5 dollars.—I take an interest in the improvements of agriculture and the happiness of my fellow citizens: and herewith furnish you with the following mode of saving this kind of grass seed, which I think is at once cheaper, easier and better, than any other mode with which I am acquainted.

PROCESS.—When about half of the heads or tops of the grass had changed their appearance, or become whitish, I sent two men with mowing scythes, and one with a common grain cradle (the fingers of which were pretty close together, to gather up the heads of the grass and to prevent them from dropping through) into the field; and they began to work in the following manner. One of the men, with his scythe, mowed a *swath* to make room for the tops of the grass to be laid from the *cradle*. The man with the cradle followed, cutting the tops of the standing grass as high as could conveniently be done and save the heads—laying the same in or near the middle of the mown swath, (in the same manner that grain is laid from the cradle) for the purpose of leaving room for the mown grass or stubble, of the mower, who immediately followed the cradle. In this manner, the tops were kept separate from the mown *stubble*. It was found necessary for the man using the cradle, to stand near the *edge* of the standing grass, that he might with more facility lay his tops out of the way of the stubble, to be cut after him it was also found that one man with a cradle, would cut the tops about as fast as two others could mow the stubble after him. And in this manner they proceeded till they had cut as much as was intended.

Then with rakes, they gathered up three or four of the seed or cradle swaths, and laid them sufficiently spread, by the side of another cradle swath; which made a space for spreading the hay or stubble, which at a proper time, was raked and carried off.

The seed tops remained, as above described four or five days, (which when the weather is dry will generally be long enough) and then it was ready for threshing. The tops may be threshed with horses or flails—which ought to

be done on a hot, dry day, and as soon as the heads are sufficiently dry. I threshed mine last season on the fourth day after being cut, with horses—within half a day—from grass which grew on about 1 1/4 acre of ground, and it did not stand very thick.

MARTIN E. WINCHELL.

North East, May 12, 1823.

From the Albany Plough Boy.

From the first settlement of America, land have always been considered so plenty and so cheap by our predecessors, that little attention has heretofore been had to economise the soil. Recently, from a variety of concurring circumstances, especially from the stimulating measures of numerous agricultural societies, it is found much to the interest and happiness of individuals to renovate worn out lands, as they have been called, in preference to submitting to the privations and miseries of seeking new land in distant regions. Among numerous successful experiments to renovate worn out lands, the following well authenticated fact is worthy the notice of every farmer. David Lawton, a Quaker farmer, from Rhode Island, settled some years ago in the town of Washington, county of Dutchess, 13 miles east of Poughkeepsie. His neighbor Amos Herrick, pressed him for some time to purchase 20 acres of land adjoining his farm, which had been lying in common, as worn out abandoned land, for seven years. At length Lawton purchased the 20 acres at \$5 an acre payable in five years without interest, with the privilege to abandon at the termination of the period. Lawton's purchase was the sport of the neighborhood; it was pronounced worth nothing, as it was subject to a small tax, and that even mullen would not grow on it. The ensuing spring Lawton fenced in the 20 acre with substantial rails, and proceeded as follows.

First year, ploughed deep, sowed oats, and put on 3 quarts of clover seed; and a bushel of plaster, immediately after sowing, to the acre and soon after the field became green, a second bushel of plaster to the acre; left the crop to rot on the ground, and permitted no creature to run on the land.

Second year, put on another bushel of plaster to the acre in the spring; there was a good crop of clover, which was again left to rot on the ground, and no creature permitted to feed on it.

Third year, nothing was done in the spring but a vigorous growth of clover covered the whole twenty acres, which was ploughed in with 4 oxen to a good depth; the whole field smoked while the clover was in a state of decomposition. As soon as it was sufficiently rotted, the field was cross-ploughed, and when mowed it was thoroughly ploughed for a crop of wheat, which was neatly got in, and in a sufficient quantity in the month of September.

In the 4th year, reaped as fine a crop of wheat as Dutchess county had ever produced, which sold for two dollars a bushel. Lawton paid the purchase money before it was due, refunded all his expenses, labor included, and had \$20 in pocket. Two years after he refused \$50 an acre for the same land, and fairly turned the tables upon his sneering neighbors. The soil was a dark loam intermixed with coarse gravel.

CA-IRA.

NEW ENGLAND FARMER.

SATURDAY, JUNE 14, 1823.

The Farmer's and Gardener's Remembrancer.

JUNE.

DESTROY WEEDS.—The destruction of weeds is one of the most important branches of the art of husbandry. If this be neglected, or imperfectly performed, from one third to one half the crop is usually lost. If weeds are allowed to grow, we lose a part of the advantage of manuring our land. The mixture of weeds in the soil prevents the crop from receiving the beneficial influence of the air. Weeds among grain greatly increase the trouble and risk of harvest; for a crop, which is free from weeds, will need much less drying than one which is mixed with them. Indeed, it would require pages to make a complete recapitulation of the evils which arise from these "*green snakes*," as they are sometimes called by farmers, which embrace agriculture with folds almost as deadly as those with which the Anaconda or Boa Constrictor incloses its prey.

Although wheat, and other broad cast crops, we believe, are rarely, if ever, weeded in this country, there can be little doubt but that in many instances it would be good economy to pull out the weeds by hand in the same way that they are extracted from growing crops of garden vegetables. Sir John Sinclair says, "various experiments have been tried to ascertain the *positive advantage* derived from carefully weeding one part of a field, and leaving another part undone; among these, the following, made with peculiar accuracy, may be safely relied on.

"1. *Wheat*.—Seven acres of light gravelly land were fallowed, and sown broad cast; one acre was measured off, and not a weed was pulled out of it; the other six were carefully weeded. The unweeded acre produced 18 bushels; the six weeded acres 135 bushels, or 22½ per acre, which is 4½ bushels, or 1-4th more produce in favor of weeding.

"2. *Barley*.—A six acre field was sown with barley in fine tilth, and well manured. The weeding, owing to a great abundance of charcoal, cost 12 shillings per acre. The produce of an unweeded acre was only 13 bushels; of the weeded, 23. Difference in favor of weeding, 15 bushels per acre, besides the land being so much cleaner for succeeding crops.

"3. *Oats*.—Six acres sown with oats; one acre ploughed but once and unmanured; produce, 17 bushels. Another six acres ploughed three times, manured and weeded, produce 37 bushels. This experiment shows that oats require good management, and will pay for it as well as other crops. Ten bushels of the increased produce may be fairly attributed to the weeding; and the other ten to the manure."

We have not known wheat or other broad cast crops weeded in the United States; but perhaps the recital of the above experiments may, in some cases, induce individuals to make trials of this mode of freeing their fields from vegetable robbers. At least all the rye, cockle, dandel, &c. should be pulled up, in wheat fields, before they produce their seeds. "In some countries, particularly in Scotland, the people make as much account of weeding their fields of grain as their gardens. This should by all

means be performed before the time when the plants begin to send out their ears; because, after this, they will be more in danger of being hurt by people's passing among them. Especially the wheat or other grain ought not to be touched while it is in blossom."*

Care should be taken not to carry the seeds of weeds into the fields which are intended for white crops. When fresh dung is made use of, it should be applied to land on which Indian corn, potatoes, or some other hoed crops are raised. You should not suffer weeds, either in gardens, or on any part of the farm, to go to seed. If you have not time to dig them up, you can at least mow them down with a scythe, and you will thus, by preventing the production of the vegetable progeny, realize the truth of the wise saying, that "an ounce of prevention is worth a pound of remedy." Our readers have already been cautioned against sowing the seeds of weeds with any kind of grain.† To prevent this, a thorough cleaning of the seed should be accomplished by winnowing, sifting, washing, &c. But the seeds of weeds are often sowed, after they have been separated from grain by winnowing. This will be the case when the chaff and rubbish at the tail of the heap of winnowed grain is thrown upon a dung hill, which is to be removed and applied to the soil, before the seeds contained therein have had opportunity to vegetate and get destroyed.

Weeding flax is considered in Europe, and by good husbandmen in this country, as necessary to secure a good crop. It should be carefully weeded when the plants are only three or four inches high; they are not then injured by the laborer going barefooted over them. It is not supposed to be injured by the clover and grass sown with it; on the contrary the Flemish farmers think them beneficial, by protecting the tender roots from drought, and keeping the weeds under.‡ Land, however, which has lately been cleared from its original growth of wood, or lately broken up from sward, will, generally, produce broad cast crops, which require no weeding.

INDIAN CORN.—"When the plants are three or four inches high, run a furrow with a one horse plough in the intervals between the rows as near as can conveniently be done without injuring the plants, making two furrows in each, turned from the rows, and then the weeds killed with the hand hoe, and a little fresh earth drawn about the plants." Such are the directions of Dr. Deane; but Judge Peters, of Pennsylvania, says, "Wherever the harrow has been fairly tried, its advantages over the plough, in corn crops, have been decisively shewn." Perhaps the question whether the plough or harrow is to be preferred, like many others in agriculture, admits of no definite answer, but depends on the nature of the soil. If that is hard, stony and uneven, the plough will loosen more mould, and destroy more weeds than the harrow; but if the field is level, mellow and dry, the harrow should, we think, be preferred, at least for the first time of hoeing. Judge Peters asserts that

"Transplanting from a seed bed, sown early, broad cast, in or convenient to your cornfield,

* See Deane's N. E. Farmer.

† See communication of O. Fiske, Esq. in our paper, No. 23, page 222.

‡ See Mr. Pomeroy's Essay on Flax Husbandry.

or with supernumerary plants, from other hills, is far preferable to using seed corn for supplying defective hills cut off by the grub, or otherwise vacant. Plants even take and keep pace with those uninjured; but renewals with seed corn seldom arrive at maturity."

A writer in the American Farmer, vol. ii, p. 35, informs that he does not set or transplant his corn, as it never succeeded with him.

"Salt is used for destroying grubs, worms, &c. and has been successful in banishing or killing the corn-grub," as we learn by Judge Peters, but we are not told what quantity should be applied to the hill, nor the time of its application. We have been told by a practical farmer, that a small handful of salt, put into the bill at planting, preserved Indian corn from the wire worm and other insects. We should apprehend, however, that if salt is placed in contact with young plants it might injure or destroy them by its acrid qualities.

"A handful of ashes on each hill will nourish the plants and have a tendency to prevent their being annoyed by worms. Some lay it on just before the first or second hoeing. It will have a better effect in preventing worms, if laid on before the corn is up. But it is commonly designed to answer chiefly as a top dressing; and for this purpose it would answer better near the third hoeing; for then the plants want the greatest degree of nourishment, as they begin to grow very rapidly. Two dressings with ashes, to answer the two purposes, would not be amiss."* "This practice of dressing the hills does best when applied at the first hoeing, and repeated again at the third hoeing; the first brings forward the stalk, and the last the corn."† "It is essential to have this plant started well; because if it get stunted at the outset by cold rains, it seldom gets the better of this during its whole growth, particularly if the soil be not perfectly suitable to it. To prevent this, it is best to apply some stimulants to the plants at that time; and the best for that purpose are bog dirt, marle (dug out of bog-swamps,) ashes and gypsum. The latter ought, however, to be preferred on all soils to which it is suitable, because it is cheap and easily applied." Plaster, ashes, &c. are usually applied immediately after weeding, and left on the top of the ground. But it is recommended by a writer in the American Farmer, vol. i, p. 5, in case of dry weather to cover the plaster, "as long droughts and hot sun are injurious to its stimulating powers."

PUMPKINS.—If you have any spare land of a suitable quality you may perhaps as well raise a crop of pumpkins. They will grow on any kind of soil which is proper for hoed crops, but the land cannot easily be made too rich for them. The Farmers' Assistant thinks they will grow better when planted by themselves, than when raised with Indian corn. Dr. Deane likewise expresses the same opinion. It is directed that hills for pumpkins be placed about seven feet apart, and only one plant should finally be suffered to stand in a hill. The crop is much less expensive to raise than Indian corn, and we are told that an acre properly cultivated will produce as much as ten tons, worth at least 16 cents a hundred for feeding and fattening cattle. Instead of a summer fallowing for wheat, a farmer might derive a handsome profit by

* Deane's N. E. Farmer.

† Farmers' Manual.

planting this vegetable. "The pumpkin crop would require two ploughings and two hoeings while growing, and another good ploughing would then be requisite to fit the ground for the reception of the wheat. The intervention, therefore, of the crop of pumpkins would require the two ploughings, which are requisite for it while growing, more than is commonly given to land when summer fallowed in the usual way. Whether the crop could be ripened and the ground cleared in season in autumn for sowing winter wheat, we cannot say, but believe it generally might. Give the hills plenty of seed to guard against accidents, insects, &c. and pull up the supernumerary plants in due season."

INDIAN CORN FOR FODDER.—"The husbandmen of America would do well to try the method of cultivating Indian corn, as practised in Italy, France and Spain, where it is sown very thick in broad cast, for producing fodder, and for stall feeding or soiling."* "Every farmer knows how eagerly cattle devour the entire plant of Indian corn, in its green state; and land in good condition will produce good crops of it. Some years ago, just when the ears were in the milk, I cut close to the ground the plants growing on a measured space, equal, as I judged, to the average product of the whole piece, and found that at the same rate, an acre would yield twelve tons of green fodder; probably a richer and more nourishing food than any other known to the husbandman. And this quantity was the growth of less than four months." "It has appeared to me that the sort called *sweet corn*, (having a white shrivelled grain when ripe) yields stalks of richer juice than the common yellow corn. It is also more disposed to multiply suckers—an additional recommendation of it, when planted to be eaten in a green state, for horses and cattle, and especially for milch cows; and its time for planting may be so regulated as to furnish a supply of food just when the common pastures usually fail. I am inclined to doubt whether any other green food will afford butter of equal excellence."† The Hon. Josiah Quincy has likewise soiled cattle from Indian corn, sown broad cast, with great success, obtaining, if we recollect rightly, two crops in a season. We cannot say how much seed should be sowed broad cast to an acre. Perhaps between two and three bushels would be sufficient. The author of a "Treatise on Agriculture," published in the Albany Argus, says, that "corn is sometimes cultivated for fodder only, in which case it is generally sown, broad cast, at the rate of *ten bushels* to the acre, and cut green. In the volcanic soils of Italy, it sometimes produces four green crops in a year." The Massachusetts Agricultural Repository, vol. vi, p. 380, says, "We think the writer must have been mistaken in the quantity of corn sowed broad cast on an acre. We are persuaded that two or three bushels would be ample; better than a larger quantity." When great authorities differ on agricultural points, experiments must decide. We are inclined to the opinion of the author of the Treatise. If fodder alone is the object in sowing Indian corn, we should suppose that it can hardly be sown too thick. The stalks will be smaller, but there

will be more of them, and they will be finer and more easily cured or made into a sort of hay, and we believe would furnish more food for cattle when cut and given green. But this is merely conjecture, as we have never known experiments relating to the subject, though we wish they might be instituted. We have learned, however, from inquiry, that some farmers have been in the habit of sowing Indian corn broad cast, mixed with *cabbage seeds* and oats; and making use of them altogether for soiling, or giving them green to cattle. It will be proper if any of these seeds, or millet, or any of the grasses are sown for the purpose of cutting them green, to harrow and roll the ground perfectly smooth for mowing, as directed in Col. Pickering's remarks on the premiums offered by the Essex Agricultural Society.*

* See N. E. Farmer, page 289.

RECRUITING WORN OUT LANDS.

In this day's paper, page 364, will be seen a detail of an important experiment by a Mr. Lawton, for recruiting a field which had become barren by neglect, or improper management. This experiment seems to have been conducted in a mode analogous to, but in some respects different from what is called *turning in green crops for manure*. The first and second crops of clover, including two years of the experiment, were not ploughed in, but left to rot on the ground. The third year produced a crop which was worth ploughing in. The two first crops were, properly speaking, *smothering crops*. We believe that almost any soil may be made productive by being protected from the rays of the sun, and at the same time exposed to the action of the atmosphere. Every farmer knows that the earth under a wood shed, a dwelling house, or any other building, if the air has free access to it, soon becomes fertile without manure, and even salt petre may be made of it, from nitrous particles, which it must have imbibed exclusively from the atmosphere. It is well worth consideration whether clover, peas, millet, buck wheat, white lupin, or any other crop intended to recruit an exhausted soil, may not as well or better, in many instances, be suffered to rot on the ground, as be turned in. At least it cannot be doubted but more benefit would be derived to a sandy soil from the shade afforded by a small crop, than from the manure such crop might afford by ploughing it in. But if the object of the farmer in sowing his land is either to shade it, manure it, or to cut the crop for soiling, or giving green to cattle, he can hardly be too liberal of the seed applied.

DAVIS' PLOUGH.

An experiment was made on Saturday last, in the presence of many citizens, on one of the vacant squares of this city, to test the value of the *Substratum Plough*, of which Gideon Davis is the Inventor and Proprietor. From so limited an experiment, a conclusive opinion could not be formed; but the impressions of those who understand the subject appeared to be de-

cidedly favorable to the plough as an important implement for pulverizing the earth far beyond the ordinary depth of the plough, and as particularly adapted to put ground in the best condition for Indian corn and all root crops. This plough stirs the ground to the depth of from ten to eighteen inches—the average depth of its running being probably over twelve inches. Some idea of the value of the Invention may be gathered from this fact.—*Nat. Intelligencer*.

HEAD ACHES AND APOPLEXY.

From a Medical work entitled 'Farmer on Head Aches.'

The alarming increase of apoplectic fits for several years past, has naturally given rise to the question, What do they proceed from? Various opinions have been given by writers on the subject, but none appear to be satisfactory.

Now, from all the consideration I have given to the subject, and coupling it with many corroborative circumstances, I find no hesitation in coming to the conclusion, that the prevalence of apoplexy is owing, in a great measure, to the introduction of the custom of wearing cravats. This observation will appear less extraordinary, when we call to mind the fact that this addition to our dress was not adopted until the 16th century, previous to which period the disorder in question was met with but as one to three compared to the present. In that day the neck was divested of every kind of covering, except a slight frill which contained no warmth, and instead of detracting from dignity, it added much to the majesty of the countenance. A mere shirt collar was worn on the neck by some people, but it did not operate in augmenting vascular action there.

But I find another proof of the feasibility of my remarks, by the circumstance of females being less liable to apoplexy than the opposite sex, although the nature of their economy might be supposed to lead much oftener to the complaint. Now we find that their necks are not enveloped in padded ligatures, and consequently the proportion of sudden deaths amongst them is much less than in men.

FOREIGN.

FROM FRANCE AND SPAIN.

Bordeaux and Cadiz papers to the 25th of April, have been received in New York and this city. By these we learn that the royalist Gen. Morales had been taken in an action at Carreña. The government of Spain had officially declared war against France, and had ordered out many public and private vessels against the commerce of the invading country. Tranquillity prevailed at Madrid, but the spirit and enthusiasm of the Spanish people had not abated. The French army was making a slow and cautious progress towards Madrid, and according to their own accounts preserve excellent discipline, but the Spanish say that they commit great excesses. The national troops have fought bravely in the Province of Bilbao, but retreated before the superior numbers of their opponents. The French have levied, according to their own statements, a contribution of 400 suits of clothes on Bilbao. The Spaniards say that the contribution was 8000 dollars. At Madrid preparations were making for giving the French such a reception as may make them repent of their temerity in undertaking to dragoon their neighbors into despotism. The guerille or partizan bands of Spaniards have begun their operations with much vigor. The militia of Saragossa have volunteered their services during the war, and a band of Royalist troops, consisting of 2000, have been completely beaten at Santiague.

Logrono.—The capture of this city is announced in an official despatch from the French General, in which

* Bordley's Husbandry.

† Hon. T. Pickering's Address to the Essex Agricultural Society.

he says, "the enemy made an orderly retreat for nearly a league, defending every position, but were at last broken by the intrepidity of Col. Muller, who threw himself with his hussars into the midst of them, shouting 'long live the king,' &c. The result of this brilliant affair is the capture of Gen. Don Julian Sanchez, 64 officers and soldiers, one standard, several lances, 200 or 300 muskets, &c. and about 30 killed. In short, the Spaniards appear to be pursuing the policy by which Bonaparte was beaten, and which, if persevered in, cannot fail to prove fatal to their assailants in this instance.

LATER STILL.—An arrival at N. York has brought London papers to the 28th of April. An official bulletin from the army of the Eastern Pyrenees, dated 18th April, announces that the 5th division of the fourth corps had advanced to Janquera without meeting the enemy. A French paper estimates the whole force invading Spain at 81,000;—60,000 on the side of Bayonne, and 21,000 under Moncey, at Perpignan. Of the former, more than 30,000 will be necessary for the investment of St. Sebastian and Pampeluna. Sir Robert Wilson, accompanied by a son of Lord Erskine, has left London for Falmouth, to embark for Vigo and join the Spanish army. Some of the French papers state that the Duke d'Angouleme offered the Governor of San Sebastian a bribe of 100,000 francs to surrender the fortress, which he accepted, and having obtained the cash, when the French troops advanced, fired upon them, and killed about 860. The money received was immediately sent to the Cortes. The prisoners taken at Logrono were about 150. Accounts from Portugal state that the insurgents are giving way on every side, and the constitutional forces would soon extirpate the rebellion. The French government is said to have taken great offence at the proceedings in the British Parliament and the neutral course of England. Every thing on the part of the Spaniards indicates determined but wary opposition; and clouds and thick darkness are already resting on the prospects of the invaders.

Two regiments of *women* (says a Perpignan paper,) have been organized at Barcelona, for the service of the place, in case of siege. We hold in our hands an engraving of these soldiers—they are in a becoming dress, and armed with a lance. It may be recollected that in the former war a similar battalion was formed at Gironne, whose courage is much spoken of by Marshall St. Cyr, in his work on Catalonia.

Spanish Main.—The Columbian forces under Montilla have captured the fortress of San Carlos and city of Maracaibo. A division of Morales' army, 6000 strong, under Col. Gomez, had been defeated by the Colombian troops, under Gen. Gonsalvez, and the Spanish Governor of Coro and many others killed. Bolivar was at Guayaquil in March, and had withdrawn the succors furnished by Colombia for Peru, not being wanted, and had changed the destination of the force, 8,000 men, for Santa Martha, and if necessary for Maracaibo.

The last accounts from La Vera Cruz state that the Ex-Emperor Iturbide, with his family, was about embarking for Leghorn, in a British vessel, and that the Mexican Government had agreed to allow him 25,000 dollars per annum, during life.

The New (London) Monthly Magazine for April, says, "We have long and anxiously looked towards the press of America for a sound and sincere history of man in his savage state. Europe in fact has a right to look to America for such a history."

DOMESTIC.

Flood of the Mississippi.—Much damage has been done, and much more is apprehended, from the extraordinary height of water in the Mississippi and its tributary streams. The Louisiana Gazette of the 13th ult. speaks of a freshet in the river Pascagoula, and the streams entering therein, which carried away all the mills in that part of the country, besides doing other damage. An article dated Baton Rouge, May 10th, declares that "the state of the Mississippi at this time becomes really alarming; it rises from an inch to an inch and an half every twenty-four hours, and by the latest accounts, which are far from being satisfactory, we are informed that the Missouri freshet is daily ex-

pected. This is an uncommonly distressing season in every point of view—mercantile business is at a stand—the price of cotton low, and without demand—cash scarcer than ever before known in this part of the world—inconstant rains for a certain length of time latterly, have nearly destroyed the new planted crops, and the unusual swelling of the river threatens to blast all hopes which might have been entertained of remedying the evil." At New Orleans, likewise, great apprehensions were entertained for the safety of the embankments. On the 11th ult. the river ran over into Levee street, and it was feared that a general inundation would soon take place.

The Secretary of the Commissioners under the Florida treaty, has given notice that he will answer the inquiries of any claimant with regard to his individual claim, whenever addressed by letter.

The New York American states, as a report, that Return J. Meigs has been removed from the situation of Postmaster General, and Mr. McLeod, of Ohio, formerly in Congress, appointed in his stead. The editors say they have reason to think the report well founded; but the National Intelligencer is silent on the subject.

A hail storm was experienced at Lynn and Saugus on Thursday afternoon of last week, and several panes of glass were broken. At Lynnfield, several barns were blown down, fences destroyed, and trees torn up by the roots.

A writer in the Richmond Compiler offers an extract from the European Magazine of 1811, giving a statement of the number of men employed by Napoleon to subjugate Spain. The grand total was five hundred and fourteen thousand, seven hundred and ninety-six. These men were hearty in the cause, and were commanded by able generals. They fought for four years, and were finally unsuccessful. What can now be expected from 100,000 men, going reluctantly to battle, and led on by incompetent officers?

An Albany paper of June 4, says—Notwithstanding the large quantity of flour which is daily brought to this market, the price of wheat has been looking up for some time past, and is now from 11s. to 11s. and 3d. per bushel, and we should not be surprised to see the first quality bringing 11s. 6d. or 12s. Winter grain, we are told, in general, looks well, and promises an abundant harvest.

Oranges have been introduced into the Penitentiary, Millbank, (Eng.) as a substitute in the regimen of the prisoners, and the most salutary effects have been experienced from their use. The prisoners are allowed daily, a quarter of a pound of meat and three oranges in addition to the former allowance of soup.

MASSACHUSETTS LEGISLATURE.

But little business of great general interest has been completed in either House, except what related to the usual routine of organizing the government, the details of which we have already published. The following is a list of the bills which have passed their final stages, so far as they have yet fallen within our notice.

To incorporate the Canal Manufacturing Co.—additional, for incorporating the Charlestown Bleachery—to authorize the Trustees of the Baptist Education Fund to divide the same—to incorporate the Trustees of the Ministerial Fund of the Baptist Society in Haverhill—the Leicester Manufacturing Co.—the Trustees of the Ministerial Fund of the first Congregational Society in Wendell—in addition to an act entitled an act to incorporate the Proprietors of the Museum Hall in the town of Boston—in addition to an act entitled an act to incorporate the Union Marine Insurance Co. and the several acts in addition thereto—to incorporate the Elliot Manufacturing Co.—in addition to an act entitled an act to incorporate the Linen and Duck Manufacturing Co.—to cede to the United States the jurisdiction of a site for a Light House on Monamoy Point—in addition to an act entitled an act to incorporate the President, Directors & Co. of the Exchange Bank—in addition to an act entitled an act to provide for the discharge of Officers in the Militia.

A resolve passed authorising the Treasurer to borrow \$50,000.

AGRICULTURAL ESTABLISHMENT,

NO. 20, MERCHANTS' ROW,

At the East End of the Old Market.

FOR sale as above, a variety of the most approved single and double mould board Ploughs, C. Howard's improved cast iron mould board, with wrought Shear and Coulter, Cast iron do. do. do. J. Seaver & Co's. do. do. Bigelow's wrought do. do. Warren's much approved common Ploughs, Sinclair's side hill do. do. do. Howard's much improved Cultivator, an implement highly esteemed for its utility in drill cultivation, Bennet's Broad Cast, Seed Sowing Machines, for large and small seeds, Eastman's improved Straw Cutter, Safford's new invented Straw Cutter, much improved, Common hand Straw Cutters, An English Vegetable Cutter, Stevens' patent steel spring Hay and Manure Forks, Steel spring Potatoe Hoes, English cast steel broad Hoes, Common and steel do. do. A great variety of Garden and other Agricultural Implements. June 7.

PRICES OF COUNTRY PRODUCE, &c.

[Revised and corrected every Friday.]

		FROM	TO.
		D. C.	D. C.
ASHES, pot, 1st qual.	ton.	145 00	150 00
pearl do.		155 00	157 00
BEANS, white,	bush	1 00	1 08
BEEF, mess, 200 cwt.	bbl.	9 50	9 75
" No 1,		8 50	8 75
" No 2,		7 00	7 25
BUTTER, inspect. 1st qual.	lb.	12	13
" 2d qual.		10	11
small kegs, family,		14	15
CHEESE, new milk		7	8
FLAX		8	9
FLAX SEED	bush	85	90
FLOUR, Baltimore, superfine,	bbl.	7 75	7 87
Genesee		7 62	7 87
Rye, best		4 75	5 00
GRAIN, Rye	bush	72	75
Corn		63	65
Barley		68	70
Oats		40	42
HOGS' LARD, 1st sort	lb.	10	10
HOPS, No 1,		10	12
LIME,	cask	1 25	1 50
OIL, Linseed, American	gal.	65	00
PLASTER PARIS	ton.	3 00	3 25
PORK, Navy Mess	bbl.	12 00	12 50
Bone Middlings		14 00	14 50
Cargo, No 1,		12 00	12 50
Cargo, No 2,		11 00	11 50
SEEDS, Herd's Grass	bush	2 00	2 25
Clover	lb.	8	9
WOOL, Merino, full blood, washed		55	65
do do unwashed		48	50
do 3-4 washed		50	55
do 1-2 do		40	45
Native		38	40
Pulled, Lamb's, 1st sort		55	60
do Spinning, 1st sort		50	55

PROVISION MARKET.

BEEF, best pieces	lb.	8	9
PORK, fresh		7	8
VEAL,		6	8
LAMB, per quarter		37	50
POULTRY,		10	12
BUTTER, keg & tub		13	14
lump, best		16	18
EGGS,	doz.	12	13
MEAL, Rye,	bush	75	80
Indian,		75	
POTATOES,		40	45
CIDER, liquor,	bbl.	1 50	2 25
HAY, best,	ton.	20 00	22 00

AN ODE,

Written for the Celebration of the Second Centennial
Anniversary of the Settlement of N. H.

Two Hundred Years are number'd now,
Since with the op'ning year
The white man breath'd his ardent vow,
And rais'd his altar here;
From Albion's haughty sea-girt land,
"Laconia's" Ancients come,
A patient, firm, and dauntless band,
To seek a peaceful home.

And why should thus our Fathers spurn
Their native earth and sky?
With visions bold their fancies burn;
Their hopes and hearts beat high;
For mid these northern wilds they see
Perennial nature bloom,
And rivers roll in majesty,
To fertilize their home:

And mighty lakes are spreading there,
Where Eden islands show,
And "chrysal hills" are swelling fair,
Where mines of treasure glow;
Oh, at those visions never smile,—
They gilded well the gloom;
They soften'd oft the rugged toil
That rais'd our happy home.

Nor think such dreams were fables vain,
The moral we may find;
Though winter here in rigor reign,
No frost can blight the *Mind*.
It glows as pure, it soars as light
As ocean's wintry foam;
It is the *Freeman's* Chrysal bright—
The Gem that gilds his home.

Then polish high the living *Mind*!
'Twas Athens' noblest praise—
Be Learning here with Labor join'd,
Our laurels with our lays;
And God, who saw with tender care
Our Pilgrim Fathers roam,
Will bless those sons and daughters fair,
That grace and guard their home.

HAIL THE DAY.

TUNE—*Scots wha hae.*

[Sung after dinner at the Centennial Celebration.]

Hail the day our gallant sires,
On these rocks first lit their fires,
Where now stand our fanes and spires,
On this jubilee—
Sires, who from old England bore
Freedom's standard to our shore,
May your deeds for ever more
Live in memory.

While New Hampshire's healthful gales,
Ocean whiten'd with her sails,
While our verdant hills and vales
Cheer us gratefully;
We'll revere the patriot band,
Men, who on this desert strand,
Wav'd their banner o'er our land—
Flag of liberty.

On the spot where pilgrims fled,
Where by savage foes they bled,
To the spirits of the dead,
This our oath shall be;
By the mounds their ashes made,
By the altars where they pray'd,
By our own right arm and blade,
Still we will be free.

From a Fayetteville (N. C.) paper of May 26.

HYSON TEA.

The fact has been demonstrated, that the
genuine Hyson Tea may be successfully culti-
vated in this State. The experiment has been
conducted, and the result has been the most satisfac-
tory. The wife of Mr. J. Newland, of
Fayetteville, found a seed much resembling

that of buckwheat, in the bottom of a box of
tea, which her husband had purchased in this
town. She planted the seed in her garden,
and the produce was a plentiful crop. She
gave some of the seed to Mrs. Farrington, the
lady of Mr. John Farrington, of Chatham coun-
ty, who also planted the seed; and the writer
of this article obtained his information from
Mrs. Farrington, and also obtained from her
some of the tea and seed. He planted the seed
in his garden in this town, where it can be seen
by those who are curious to witness the pro-
ducts of the East Indies transferred to this wes-
tern hemisphere. The writer of this article
has distributed, of the small portion of the seed
obtained by him, to many of his friends in this
town and its vicinity. A treatise on the mode
of curing this valuable plant is quite desirable.

From Silliman's Journal.

SALEM MANUFACTURE OF ALUM.

We contemplate with particular satisfaction
every advance made in our domestic arts and
manufactures, and regard every new step of
this kind as an addition to our national resources.

Excepting the natural alum of the caverns in
Tennessee, and of some other regions of the
West and South, and that occasionally found in
our schistose rocks, and used in these cases
more or less for domestic dyeing, and other
purposes, we were not aware that the United
States possessed any resource for this article
independent of the foreign markets.

Some time since we were informed that a
manufactory was established at Salem in Massa-
chusetts, and the proprietors have recently put
us in possession of specimens, which prove that
the effort has been completely successful.

Among the crystals of alum, are some of
great size, and exquisite beauty and transpar-
ency, exhibiting to the naked eye, in a very
striking manner, the successive layers of super-
position, and the progressive increments and
decrements. A part of an octaedron lies before
us, complete, except on the side where it ad-
hered to the mass. It measures nearly five
inches by four, and has the most perfect finish
on its faces and solid edges and angles, which
are in every part replaced by truncations.—
Some crystals of rather smaller size are quite
or nearly perfect. We are aware that fine
crystals are not rare in manufactories, but we
have not seen these equalled even by the simi-
lar productions of the celebrated establishment
near Glasgow. There can be no question from
the appearance of these crystals, as well as
from that of the amorphous masses, of the ex-
treme purity of these materials. Perhaps they
are even purer for this reason, that the alum is
not manufactured (as we understand) from the
usual source, namely, the decomposed alum
slates, but from the direct synthetical union of
sulphuric acid with the argillaceous earth.

The sulphate of copper (blue vitriol) made
at this establishment, is equally perfect in its
kind, presenting crystals of extreme finish and
beauty.

From the American Farmer.

CURE FOR THE GRAVEL.

MR. SKINNER—When we take a daily paper
in hand, it is generally for the purpose of dis-
cussing the politics of the day, or noting the
price of stocks: both pass away as the Ephem-

era. But when in company with the *American
Farmer*, "we read, mark, learn, and inwardly
digest" its valuable communications. I often
copy receipts from it, and am inclined to mea-
sure "other people's corn by my own bushel,"
and think the following receipt may be of as
much service to suffering humanity, as one for
making the *Hamburg pickle*. Should you be
of the same way of thinking, it will find a place
in your valuable paper.

Having been much troubled with the gravel,
I was advised by a Mr. Zane, of this city, to try
a decoction of wild carrot, *Daucus Carota*. I
made a tea from the stalks and seed, with a few
water melon seed, and drank about a quart a
day; it is as palatable as China tea, when
sweetened with honey or sugar. In less than
a month from my first using it, I passed a stone
2-8ths of an inch long and 3-8ths circumference,
of an egg-like form. I have ever since, when
troubled with any pain in the region of the
kidneys, taken a strong tea of it for my common
drink, through the day, and always found relief.
I take it with my children for breakfast, once a
week—they make no objection to the taste.

This is a remedy that is to be found by every
farmer on his own lands; and cannot well be
mistaken, from its great resemblance to the
culinary carrot seed and flower. Mr. Casey,
Seedsman, called to my recollection, a medicine
used by my father, composed of beards of leeks,
birch twigs, pennyroyal and wild carrot—ad
libitum—but a compound is not so easily pro-
cured as a simple, which alone, often causes
the receipt to be passed over.

Yours respectfully,

WASHINGTON SPENCER.

May 18th, 1823.

Lord North.—While this gentleman was en-
gaged in discussing one of the most serious
points of a question under examination, a dog
which had concealed himself under the table of
the House of Commons, made his escape, and
ran directly across the floor, setting up at the
same time a violent howl. It occasioned a burst
of laughter, and might have disconcerted an or-
dinary man. But he who knew how to convert
the most awkward occurrences to purposes of
advantage, having waited till the roar had sub-
sided, and preserving all his gravity, said to
the speaker, "Sir, I have been interrupted by
a new member, not acquainted with the forms
of the house. I therefore yielded to him; but
as he has concluded his argument I shall re-
sume mine."

A dandy, remarking one summer day, that
the weather was so excessively hot, that when
he put his head into a basin of water, it fairly
boiled, received for reply, "Then, sir, you
had calf heads' soup at very little expense."

TERMS OF THE FARMER.

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per annum, payable at the end of the year—but those
who pay within sixty days from the time of subscribing
will be entitled to a deduction of FIFTY CENTS.

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number.

NEW ENGLAND FARMER.

PUBLISHED BY THOMAS W. SHEPARD, ROGERS' BUILDINGS, CONGRESS STREET, (FOURTH DOOR FROM STATE STREET.)

VOL. I.

BOSTON, SATURDAY, JUNE 21, 1823.

No. 47.

FACTS AND OBSERVATIONS RELATING TO AGRICULTURE & DOMESTIC ECONOMY.

BY THE EDITOR.

BARNs AND BARN FLOORS.

We have given, page 361, some remarks on this subject; but the following additional observations may perhaps be useful.

In constructing the floors of barns, care should be taken that they be made firm, dry, and solid, affording no place of refuge for reptiles, small animals, &c. To effect this purpose, it is recommended that the surface of the ground under the floor should be dug away to the depth of about six inches, and the earth taken out, when of a proper kind, and, after being well cleared of stones, be mixed with clay and made into a stiff mortar, which as it cracks in drying is beaten down till it becomes solid.

The ancients were remarkably careful in the construction of their threshing floors. Columella states that they used to dig up the ground to some depth in order to moisten it with fresh lees of oil, but not with any that had saline matters in them; then to mix it thoroughly with chaff, and ram it down as close as possible; afterwards as it dried, to stop all the cracks and crevices that appeared, they continued beating it down with great force to render it quite level. They then strewed it again with chaff, which they trod in, and left it to be completely dried by the sun. The lees of oil were probably intended to preserve the floors from dampness, which is a great advantage. Rees' Cyclopaedia observes that "a floor made in this manner, though not good, was probably preferable to either stone or the earthen floors formerly common in many parts of this country, from which such dampness has been communicated to the grain, as has rendered wheat, for example, sixpence or a shilling a bushel the worse either for keeping or exportation. Bricks, when hard and well made, may form a tolerable floor for many purposes; but from their attracting moisture, are not by any means to be recommended where grain is to remain much on them; and stones are liable to the same objections.

"Wood is much the best for this use. Boarded threshing floors, made of sound, thick, well seasoned planks of oak, are excellent for threshing upon, will last a long time, and may be converted into good floorings for rooms, by planing them down after they become too uneven for the purpose intended.

"There are various ways of laying and constructing barn floors, when made of wood.—The most common method is that of nailing the planks, after their edges have been shot true and well joined, down to wooden sleepers firmly placed on the ground. But in the mid land counties another method is followed, which Mr. Marshall says, is that of first having the floors laid with bricks, and then covering them over with the planks, without any other confinement than having them doweled together, or ploughed and tongued, and their ends let into the sills or walls, placed in the usual manner on each side of the floors. The advantages of this method

of making the floors are, that when the brick work is well executed and made perfectly level, vermin cannot be concealed underneath them, nor damp air be communicated; besides, floors formed in this way are found to wear better than those placed simply on sleepers."

The author of "Letters of Agricola," after condemning the mode in which barn floors have usually been constructed, in Nova Scotia, (which is probably similar to our usual method) gives the following directions for obviating its evils: "After tearing up the planks, and building the foundation round and round, close to the sills, the void should then be filled and packed firm with earth. As there will be a necessity to cut away all the present sleepers or joists, which besides supporting the planks, bind and unite the two sides of the frame, pieces of square timber may be stretched across the whole breadth and at a lower depth, and be secured to the bottom of the sills, either by a mortise, or by driving down an iron bolt. By this means the strength of the frame will be preserved unimpaired, and the operations may proceed without endangering the structure. The earth should then be filled in, till it rises to the level with the present floor, and it should be beaten down with a heavy mallet, till it is completely consolidated. A stratum of clay should next be laid over the whole surface, by which the moisture may be retained and hindered from escaping through the earth." He advises to place the planks, which are to compose this floor, while the clay is yet a little yielding, that they may be imbedded with the greater firmness.

Dr. Deane observes that the threshing floor should be laid on strong and steady sleepers, well supported from beneath; otherwise carting in loads upon it will soon loosen it, and render it unfit for the operation of threshing. It should be well seasoned, and nicely jointed; and care should be taken to keep it very tight. If it should be so open as to let grain or other seeds pass through, the grain will serve to feed and increase vermin. These directions appear to proceed on the supposition that a space is left between the bottom of the floor, and the surface of the ground. Such space however should never be left unless it can be converted to some purpose more useful than that of harboring vermin; as it may be if situated seven or eight or more feet from the ground, according to Mr. Gibson's directions, as given in our paper, page 361. Indeed there are said to be advantages in setting the floor at some distance from the ground, so that it may have some spring or elasticity, which causes the grain to thresh out with more facility. But the mode of placing barn floors practised in some instances which have fallen within our notice, is the very worst which could be devised. We have seen them in many places laid from 6 to 24 inches from the ground, affording a convenient dwelling place for skunks, woodchucks, hedgehogs, cats, puppies, weevils, worms, bugs, and other insects of all known and unknown denominations; rats, mice, chickens, and other poultry; toads, snakes, &c. &c. In this strong hold of noxious and filthy animals and animalculæ, all creeping and flying

things which can vex, annoy and plunder the farmer, find a city of refuge, a secure asylum, and hiss or growl defiance to his attempts to dislodge them with a long handled pitch-fork or a pointed sled stake.

Where threshing machines are used, there is less need of large barns than where the flail is the only implement for separating the straw from the grain. Sir John Sinclair says "Nothing can be more absurd than the enormous barns usually attached to all the great farms in England. Grain in the straw keeps infinitely better in the open air than in close barns; it is less apt to be destroyed by vermin, and saves the enormous expense of constructing and repairing great barns. Threshing mills, when generally introduced, will soon prove the absurdity of erecting such unnecessary buildings."

The calculations of Sir John Sinclair, however, are not precisely adapted to our meridian or hemisphere, although perhaps the introduction of threshing machines might have some influence to diminish the size of our barns in certain cases. Judge Peters well observes, that "When the farm becomes productive, it seldom or ever happens that the barn is too large. The most general mistake is, that it is too small; and most commonly the floor is too narrow for treading out crops with horses, or using our simple machines for threshing. In the moist countries of Europe, wherein there are late harvests, stacking is preferred to confining grain in barns, which is said to be injurious, on account of retaining dampness, and promoting mouldiness both in hay and straw. But in our climate, favoring early harvests, with generally fine weather, no such consequences follow, and barns are all essential."

GENERAL CAUTIONS IN COUNTRY COOKERY.

Soups are never to be filled up or have even a drop of water, hot or cold, added; and are never to boil briskly. They are to be long, long over the fire, *simmering* rather than boiling. And all soups having roots or herbs, are to have the meat laid on the bottom of the pan, with a good lump of butter. The herbs and roots being cut small are laid on the meat. It is then *covered close*, and set on a *very slow fire*. This draws out all the virtue of the roots and herbs, and turns out a good gravy, with a fine flavor, from what it would be if the water was put in at first. When the gravy is almost dried up, *then* fill the pan with water; and when it begins to boil, take off the fat.—Never *boil* fish, but only *simmer*, till enough.—Beef quick boiled, is thereby hardened; *simmer* or slow boil it, in not too much water.—Veal and poultry are to be dusted with flour, and put into the kettle in *cold water*. Cover and boil *slow as possible*, skimming the water clean. It is the worst of faults to boil any meat fast.—In baking pies, a *quick oven*, *well closed*, prevents falling of the crust.

Wasteful or indolent people overlook calculation; and too many may think but little of the wholesome and nourishing qualities of food.—But here are well informed and most actively good men, recommending to the world the re-

sults of much inquiry and experience therein. However lightly may be thought of a cent on a single meal of victuals, yet when the sum of a year's meals is calculated, for a person, a family, and a nation, it becomes striking and important. A cent for a meal, amounts to three cents a day.

One person, at three cents a day,	dols.
saves in the year	11
One family of five persons	55
A nation of five millions of people	55,000,000

The cent thus saved by the good house-wife, on every plentiful meal of the wholesomest food, would be sufficient for maintaining the most desperate war by the freemen of America, in defence of their country, against the wiles and the violences of the great enlightened world!

Bordley's Husbandry.

FOR THE NEW ENGLAND FARMER.

I have observed in your paper, No. 43, a piece on the science of *Lunatism*, signed Daniel Staples, and after a long life of observation would remark that I have never had just cause to accuse the moon of interfering with my farming business, or officiously disclosing my secrets, and that the science of the moon's influence is beyond my feeble comprehension. But if the moon has such a powerful influence, I would advise my fellow citizens to be cautious how they give her just cause of offence, lest she should retaliate, as her place of residence is not within our civil or military jurisdiction.

I believe that the sap or moisture in wood, fermenting and corroding, occasions its rotting; therefore the season when the least of that is in the pores of the wood is the right time to fell it to render the wood most durable, and that opinion is agreeable to what I have formerly written. Neither do I believe from all my observations that the moon has ever interfered with her influence in my orchard, or my time for grafting; yet from the numerous accounts that I have had from people of credit, I have charity to believe that good bearing apple trees have been raised by sticking limbs in the ground. To learn the time or mode thereof, I have tried abundance of experiments, and all in vain. If the limbs that we prune off our best kind of apple trees could by any ready process be made to grow and flourish equal to young trees, it would be the desideratum of every orchardist; and it is most earnestly desired that any gentleman, having a knowledge of a successful mode of this kind, may publish it for the good of the public.

SAMUEL PRESTON.

Stockport, Pa. June 5, 1823.

From the second volume of the Memoirs of the Board of Agriculture of the State of New York.

ON THE APPLICATION OF STABLE MANURES.

[By J. BUEL, of Albany.]

The experiments of Arthur Young, and of other practical and scientific farmers, have demonstrated, that animal and vegetable manures, which undergo a complete process of fermentation in the cattle yards, or upon the surface of the ground, lose from 30 to 60 per cent. of their fertilizing properties; and if properly spread, and buried under the soil, that this loss is prevented—and that a decomposition does immediately take place, even of dry straw, sufficient to answer valuable purposes to the first crop. Mr. Young, whose correctness and practical knowl-

edge will not be questioned by any one who knows his biography or his usefulness, measured five equal pieces of ground: upon the first piece he put nothing; on the second he buried dry straw, chopped fine; on the third, straw steeped three hours in fresh urine; on the fourth, straw steeped fifteen hours; and on the fifth, straw steeped three days in like manner. The whole was sowed with barley. The produce of each piece, in grain, and in weight of grain and straw, was as follows:

	Grain.	Weight of grain & straw.
No. 1,	9	- - 48
2,	39	- - 100
3,	50	- - 120
4,	63	- - 130
5,	126	- - 300

This experiment demonstrates two important facts. 1st, that even dry straw, buried under the soil, decomposes, and greatly improves the first crop. 2d, that the urine of animals, which is ordinarily lost to our farmers, is the most fertilizing product of the stable and yard. We have a strong corroboration of the latter in the history of Flemish husbandry. Radcliff, in his report of the agriculture of Flanders, speaks of urine as constituting the most valuable part of the manure used in those highly cultivated provinces. He cites an instance, where the urine of 44 cattle, by the adventitious aid of rape-cake, and the *vidanges* from the privies, manured in the best manner twenty-one English acres per annum. The urine is collected in large cisterns under ground, into which drains lead from the stables, where the cattle are kept winter and summer. Although I do not expect to see this practice of the Flemings imitated by our farmers, yet I hope the narrative of the preceding fact will not be lost upon them. It shows the importance of constructing concave yards for our cattle, which will retain the urine and moisture, until it is absorbed by the straw, husks, stalks, and other vegetable litter of the yard.

It has become a pretty well settled principle among good farmers, that we should never delay applying manure, because it is unfermented or unrotted; but, on the contrary, that they are the most profitably applied before fermentation commences, or while it is in an incipient state. The main object of this essay remains to be considered. To what crops shall we apply them?

The experience of almost every farmer will testify, that, except on very poor soils, they ought not to be applied, in any considerable quantity, to wheat, rye, barley, or any of the small grains. They often cause, in these, a too luxurious growth, and a greater product of straw than of grain. The straw is tender, is subject to the rust and the mildew, and the grain liable to blast—besides, the crop is apt to lodge and spoil, in consequence. Another serious injury is, the propagation of weeds and grasses, the seeds of which are carried out in the manure, and which cannot be extirpated in the growing crop. To apply manures upon the surface of grass lands, unless of a mineral kind, or in the form of a liquid, or impalpable powder, is throwing away one half of their value. And peas and flax do not do well under their first operation. Arthur Young's rule, and it is a good one, is, always to apply your manure to hoeing crops.

These are Indian corn, potatoes, beans, and the whole family of vegetables. These can

bear, and they want, all the gasses which are evolved in the first process of fermentation.—The gasses open the texture of the soil, and render it pervious to heat, air, and light, and impart food to the young plants; and the hoeing process exterminates all useless plants, and renders the ground clean and loose. When applied to the maize crop, the manure should be spread before the last ploughing. The roots of this grain are numerous, extend to a great length and elongate most where there is nutriment and tilth to invite. Placed in the hill, the manure gives a temporary impulse to the growth of the plant, and fails in its benefits when most wanted to the maturing seed. It answers also best when spread, for the succeeding crop, which is always some small grain. These reasons all hold good in regard to spreading manure for the bean crop, whether that is cultivated in hills, drills, or the broadcast method. For potatoes, whose roots do not extend far, the manure is most serviceable, when applied to the hills, or drills.—For ruta бага, mangel wurtzel, cabbage or turnips, its benefits are multiplied when it is placed under the ridges upon which these crops are planted. It renders the recumbent soil light and friable, attracts moisture, and yields an abundance of food where it is alone wanted for the growing crop.

Either of these crops, if manured, leave the ground in good tilth, and free from weeds, and may be followed with advantage by wheat, rye, barley or oats, according to the quality of the soil. The manure, applied in the spring, gives most of the benefits to the small grain crop which it would have done, had it been left to ferment in the yard; and then applied to that in the first instance.

From the Mass. Agricultural Journal, for June 1823.

THE CAROLINA POTATO, OR SWEET POTATO.

This plant is not a potato, though there is a vulgar opinion, that the common potato transplanted to southern regions becomes sweet, and that the sweet potato on being carried to northern climes degenerates into the common potato. The common potato is what the botanists have named a *Solanum*. It is not a running plant. Its native country is probably the high lands of South America—a cold region. It delights in cold seasons, and a moist soil, and it is a fact, that it is drier and more mealy, when raised in such soils, than in dry ones. The best potatoes known are raised in the wet, flat and almost overgrown grounds of Lancashire in England; and in Ireland, so famous for its moisture and verdure, as to have received the appellation of the Emerald Isle. It flourishes admirably in the fogs of Nova Scotia and the lower parts of the state of Maine. The sweet potato has no title to be called the Carolina potato.—It is an exotic, or foreign plant with them. It is a native of tropical regions; has been gradually introduced northerly, like the Lima or Saba, commonly pronounced, Civet bean. The sweet potato is not a *solanum*, but a *convolvulus*; has all the habits of the tribe of the *convolvulus*; it is a running or creeping plant. It never flowers in our country. It is very hardy—is capable of bearing more frost than the common potato, but in wet seasons it is watery and less sweet. It may prove my great zeal, and somewhat theoretical turn, to recommend again the culture of this vegetable in Massachusetts, but

our years experience gives me some right to peak of it *practically*.

I recommend its culture on the following grounds.

First. It will grow and succeed here under ordinary culture.

Secondly. It is very prolific, making as good returns as the common potato.

Thirdly. It is preferred by man, bearing usually a price three times as great with us as the common potato.

Fourthly. It is preferred by all animals of whatever description. Cows and pigs eat it greedily, and even dunghill fowls will attack and consume it in a raw state.

It will produce about 300 bushels to the acre. I have never failed to raise it with success.—The only impediment to its culture is the difficulty of preserving the small tubers or roots; but as soon as it is known that there will be a demand for them, our market will be regularly supplied from New Jersey, where it has been long naturalized. It can be as easily raised as cabbages. This I undertake to affirm.

J. LOWELL.

I would not be supposed to recommend this article except for the culture of the southern and eastern parts of the State, nor even there, except as a cheap luxury.

From the same Publication.

Receipt for destroying Caterpillars, used by the society of christians called Shakers, at Canterbury, New-Hampshire.

"Take equal parts of turpentine, and train oil; apply them by means of a swab fixed on a pole, commence the operation in the spring, we suppose on the first appearance of (nests) when these devouring insects begin to appear, and repeat the operation once a week, till the trees are in blow, and very few will escape with their lives."

Signed F. W. the head of the Family.

We must express our admiration of this receipt, not because of its novelty, for either of the ingredients would be quite sufficient to kill the insects, as will common soap suds from every Monday's wash most thoroughly, without train oil or spirits of turpentine; but we admire it, as a specimen of the practice and industry of these citizens. If our farmers would only follow that part of the receipt, which requires a weekly attention, for three successive weeks, it is immaterial whether they use spirits of turpentine or soap suds, or the brush proposed by Col. Pickering, the evil would be cured at any rate.—The great difficulty is the neglect to do any thing, till after the Caterpillars have covered the trees with nests. Then the labours of the sluggard commence, and one tree, (let his receipt be ever so perfect and powerful) will cost as much time and labour as ten trees would have required three weeks sooner. If our farmers would only adopt that portion of the receipt, which requires a weekly attack on this enemy, the evil would soon cease, and in ten years we should scarce see a caterpillar in the country. By this course continually pursued, we have so much reduced the labour, that we have not one fourth part of the number we had three years ago.—*Editor Journal.*

From the Domestic Encyclopedia.

Use of Sulphur, in destroying Insects on Plants, and its Benefits for Vegetation.

Tie up some flour of sulphur in a piece of muslin or fine linen, and with this the leaves of young shoots of plants should be dusted, or it may be thrown on them by means of a common swansdown puff, or even a dredging-box.

Fresh assurances have repeatedly been received of the powerful influence of sulphur against the whole tribe of insects and worms which infest and prey upon vegetables. Sulphur has also been found to promote the health of plants on which it was sprinkled: and that peach trees, in particular, were remarkably improved by it. It has likewise been observed, that the verdure, and other healthful appearances, were perceptibly increased; for the quantity of new shoots and leaves formed subsequently to the operation, and having no sulphur on their surfaces, served as a comparative index, and pointed out distinctly the accumulation of health.

From the New York Statesman.

THE PHILOSOPHER'S STONE.

If report speaks truth, the wildest dream of the Alchemist has been more than realized by the achievements of science and genius of modern discovery; and it the long sought for philosopher's stone, by which baser substances could be transmitted into gold, has not yet been found, an invention of still greater importance has at length crowned the efforts of American chemists. It has long been known that the diamond, the most precious of all substances, is composed of carbon in its pure state. But although the powers of chemical analysis have been sufficient by repeated experiments clearly to establish this fact; yet the knowledge of it was of no practical importance to the world, because the powers of synthesis, were not co-extensive with those of analysis; and no mode had been devised of imitating nature by uniting the constituents of this precious gem. In other words, the philosopher was able to convert diamonds into carbon; but he was ignorant of the art of converting carbon into diamonds.

If the experiments of Professor Silliman can be relied on, this invaluable desideratum has in part been supplied. The last number of his Journal of Science contains an article on the philosophical instrument called the *Deflagrator*, invented by Professor Hare, of Philadelphia, by which it appears that charcoal, plumbago and anthracite have been fused by the power of that instrument, and transmuted into diamonds. The following extract contains his statement of the result of his experiment:

"On the end of the prepared charcoal and occupying frequently an area of a quarter of an inch or more in diameter, were found numerous globules of perfectly melted matter entirely spherical in their form, having a high vitreous lustre and a great degree of beauty.—Some of them, and generally they were those most remote from the focus, were of a jet black like the most perfect obsidian; others were brown, yellow, and topaz coloured; others still were greyish white, like pearl stones, with the translucence and lustre of porcelain; and others still limpid like flint glass, or in some cases like hyalite or precious opal, but without the iridescence of the latter."

"I detached some of the globules and firmly bedding them in a handle of wood, tried their hardness and firmness; they bore strong pressure without breaking, and easily scratched not only flint glass but window glass, and even the hard green variety which forms the aquafortis bottles. The globules which had acquired this extraordinary hardness, were formed from plumbago, which was so soft that it was perfectly free from resistance when crushed between the thumb and finger."

It is said the globules obtained by these experiments of Professor Silliman are perfectly limpid, and could not be distinguished from portions of diamond; that they cannot be of vitrified earthy substance contained in the plumbago; and that they are as strictly nonconductors of electricity, as the diamond itself. Such striking analogies would seem to leave little doubt of the identity of the two substances.—The artificial gems have the brilliancy and hardness of the natural ones, and are derived from materials containing the constituents of the diamond. But lest we should be deemed too sanguine, we will add Mr. Silliman's own comment on the result of the experiment, and those who are acquainted with his temperament can judge of the degree of confidence to which the discovery is entitled. The Editor of the National Gazette remarks, that the following sentence is characteristic of this eminent chemist's modesty: "It will now probably not be deemed extravagant," says the Journal, "if we conclude that our melted carbonaceous substances approximate very nearly to the condition of diamond."

Should this discovery be fully confirmed, it will form an era in science, and figuratively as well as literally, shed new lustre upon our country. The names of Silliman and Hare will be placed on the same roll with that of Franklin, and handed down to future ages, for the admiration of the world. Countries have been bought and sold for a single diamond; and what would be the triumphs of American genius and philosophy, if we could hereafter see domestick manufactories of this article established, and the coal of our markets transmuted into gems, to sparkle on the breast of beauty, taste, and fashion?

POTATO-YEAST, BY KIRBY.

The principles in this, are allied to the preparations for producing Anderson's potato spirit. Kirby recommends the *mealy* sort to be boiled till thoroughly soft; mashed till very smooth; with hot water put to the mash, till of the consistency of beer yeast, and not thicker. To every pound of potatoes add two ounces of coarse sugar or molasses. When but just warm, for every pound of potatoes, stir in two spoonfuls of yeast, and keep it gently warm till done fermenting. He says, a pound of potatoes yield near a quart of yeast, to keep three months: and he directs that the dough lie eight hours before it be put to the oven. This shews that the ferment, however sure is slow. I would have the potatoes to be thoroughly ripe, and well sprouted; for the reasons mentioned under the head of potato spirit.

CABBAGE PLANTS.

Compared cabbages transplanted, with others not once moved. The unmoved grew and were better than the moved.—*Bordley's Husbandry.*

From the Mass. Agricultural Repository.

ON THE MANAGEMENT OF ORCHARDS.

The zeal which has of late been manifested in effecting more beneficial modes of culture of our annual crops of grain and other vegetables, the science and economy so usefully inculcated and observed in preserving and in applying the multiplied discoveries of the means of stimulating vegetable growth and increase, as well as the spirit of improvement in the general implements of agriculture, cannot fail to advance the interests of the country, and afford a lively gratification to the agriculturist.

There is an object of culture, however, the advantage of which, if not so immediate, or even necessary, yet adds much to the comfort, happiness and wealth of the farmer, and may be considered his proper pride and luxury—the apple tree.

There is a moral consideration, which should induce an attention to this subject, in the opinion held by many, that cider should supersede, and is the best substitute for spirituous liquors.

Taken as a luxury of our table, as furnishing an excellent drink, as it were the wine of our country, or as an article of export, the apple stands foremost in the fruits of New England. It should not be forgotten, that of late, in addition to the usual markets, a very great export has taken place to Europe, and that the flavor of our apple is highly estimated there.

It may be useful to inquire what is the condition of our orchards? are they not in a state of decline? what are the causes? and how to be obviated? But most of all, it will be of great importance, if more attention can be excited to this subject, so as to encourage communications from the experience of our intelligent farmers; or if any hint should be suggested herein, by which, those disposed to add a fruitful orchard to their farms may find aid or encouragement.

As to the state of our orchards, it is believed from a careful inquiry, that in those parts of the Commonwealth longest settled, they are on the decline. Among the causes that have induced this, besides the natural decay of old orchards, and the neglect to set out and bring on new ones, may be mentioned—the desolating canker worm, the caterpillar, and the boring worm, at the root. The blowing down of a vast number in Norfolk and Bristol, particularly in the September gale, in 1815, and the great injury done some years since, by the formation of ice upon trees, whereby they have been overburthened and broken down; all these causes have conspired to diminish the number, more than is at present apprehended.

From experience and observation, it will, it is believed, result, that even though there may be some life and vigor in those trees which were hoisted and propped up; yet they will give but little fruit, and pass into premature decay. The breaking off the great lateral roots is generally a decisive injury to the tree, besides exposing it to blow over, whenever its props become weak, insecure or displaced.

In obviating the evils which beset our trees, the modes are various, and require great labor and application. They are too often abandoned to the canker worm and caterpillar, to the total loss of fruit and foliage. Thus the tree, by putting forth its leaves twice a year in an annual recurrence, becomes exhausted, unhealthy, and is often totally destroyed.

Many preventatives to the ravages of the canker worm have been practised. The use of tar is most frequent and effectual; but as it injures the tree by its heating and binding nature, it would be very desirable for the fertility and vigor of the orchard, if some more easy and less injurious mode could be suggested. As to the caterpillar, whenever the tree is bare of leaves, and the eggs can be discovered and destroyed, which is practicable upon low and small trees, it is most effectual. A flapper is used by some, dipped in fish oil and applied to the nests, but the removal of them by hand, though slow, has, when the caterpillar is in the nest, been of necessity the prevailing practice. It is, to be sure, slow, and it is to be wished a better mode might be suggested.* The injury done by the worm which perforates and bores its way into the centre of young apple trees, threatens great injury, and one of our Trustees (Mr. Prince) has practised a mode of destroying it in the tree, by the insertion of a wire, as described in the last number of this Repository. But it is to be hoped that some application at the rim of the tree, near the root, may be found out, which may prove obnoxious to the insect which deposits the egg, and remove the apprehension and alarm excited by this last enemy. The decay and other injuries mentioned, whether natural or accidental, are such as cannot be guarded against in any considerable degree. The prudence and good management of our farmers will always effect something. If then, our orchards are on the decline from age and other circumstances, and we have been inattentive to bring forward a new growth, would it not be useful to turn our attention to this subject. The value of the fruit should induce the culture of the tree.

The situation for an orchard is well understood by our farmers. It flourishes best in a moist and strong stony soil, where it is not exposed to the wind. It cannot be attempted with success to bring forward an orchard in an old field, a green sward, or an exposed state, to be rubbed against by cattle.

It is, however, more easy than is generally supposed, to overcome many natural disadvantages, and an orchard may be brought forward, and made productive in a few years, in a situation (when wished) not so favorable. To shew this, two cases will be mentioned which have been attended with good success.

In the one, a low piece of strong stony land was taken. As it was rather flat, it was ploughed in strips, or dug in spaces about four feet square. As it was necessary to plough a furrow between each row, the mode of ploughing in strips was found the best, as by turning the furrow towards the tree, the land was better drained. Besides raising the ground a little from the surrounding soil, half a buckload of loam was added to raise the ground on which the tree was set. After this was done, the strips or squares, as the case might be, were appropriated to the culture of potatoes and garden vegetables. In a few places only, the trees failed from the insufficiency of the drain. But by opening the drain and raising the ground, by half a buckload of loam, I found on setting out

a new tree, it flourished equally with the rest. This orchard, now in eight years, is a most valuable one, and most of the trees would give half a barrel of apples.

From this and other circumstances which have fallen within my observation, it appears that low land, if strong and well drained, will give a fine orchard, and probably sooner than any other.

The next effort was made under totally opposite circumstances. The object was, to have an orchard on a particular spot, where the soil was thin and light upon a plain or flat. The holes were dug four feet over. The two upper strata of black and yellow loam were placed aside the tree. After this, about ten inches in depth of the gravelly or poorer earth was taken out and carted off, and a horse-cart load of stones upset into the hole; upon these, a part of the upper stratum, or some dirt from the side of the road was scattered so as to fill up the interstices, since which the spots near the trees have been cultivated, by planting four hills of potatoes round each tree. The result has been tolerably favorable with all. But the trees having the stones placed at the roots have exceedingly outstripped the others.*

From the result it is to be hoped, that in this easy mode, disadvantages may be counteracted and the benefit of a deep soil had for the growth of an orchard near our dwellings, or wherever wished. As to the distance, I incline to less than is general. The best orchards I have seen have been from 25 to 30 feet distance. This is the more important, as the land if fed at all, should only be occasionally cropped a little by horses. Horned cattle, if freely admitted, will soon disappoint all expectation. It will be perceived in the difficulty of raising an orchard, at old and long improved soil is alluded to. In a new soil where the apple tree is introduced, in clearing off the forest, in this part of the country, as well as Upper Canada, they set out a tree which they often defend by upsetting a stump, so as to enclose it between roots, and they have fruit very soon indeed.

The profit of a fine orchard is familiar to our farmers. The fact is well known in this neighborhood, that 160 barrels of apples were gathered a few years since, from less than two acres in the town of Dorchester. This, with the cider made from the refuse apples, and grass, gave about \$300 per acre; an income rarely exceeded in the improvement of soil. I have been minute and particular, from a wish, that others better informed, may be induced to communicate the advantages of their experience. A fine orchard is not only a source of emolument to a farmer, but one of the most beautiful and gratifying objects that can adorn a country.

I am yours,

JOHN WELLES.

* The dimensions of the Trees in the first experiment—a rich, low, black, stony soil, drained, were at the expiration of eight years 15 to 17 inches circumference, one foot from the ground. This may be considered (the tree being small when set out,) as a growth of about two inches a year. The growth in the second experiment for six years, was, 12 to 14 inches in the holes, in which the stones were put one foot from the ground. Where no stones were put, nine inches was the growth. It will thus be perceived, that the vegetation was most powerful under circumstances by nature least favorable. If then, thus much can be done to counteract such disadvantages, it surely offers much encouragement to our efforts, and leads us to hope, that not only in this, but in other objects, they may be beneficially extended.

* The brush recommended by Col. Pickering in a communication published in our paper, page 308, is perhaps as eligible and effectual a remedy against caterpillars as any which can be devised.—*Ed. N. E. F.*

NEW ENGLAND FARMER.

SATURDAY, JUNE 21, 1823.

The Farmer's and Gardener's Remembrancer.

JUNE.

HAY-MAKING.—The best time to cut grass for hay is when the seeds are forming, but before they become fully ripe. It should not be cut too early before it has got its proper growth, because, in such case, it will shrink much in drying, and afford a less solid and nutritious substance. Neither should it be suffered to stand too late, or till the seed be quite ripe. It will not only be harder to cut, but the ripeness of the seed will cause it to shatter out while drying, which will be a loss of some consequence, as the seed is the richest and most nourishing part; and the soil will be the more exhausted by nourishing the seed till it comes to maturity. The only advantage in mowing late arises from the thickening of the grass roots by scattering some of the seeds. But this is a dear mode of sowing grass seeds.

If it is proposed to mow a piece of grass land twice in a season, the first crop should be cut earlier than when it is mowed but once, not only to give a longer time for the growth of the second crop, but to prevent the roots of the grass from being too much exhausted in producing the first crop. When it is proposed to save the seeds of red clover it is particularly important to cut the first crop early, so that the second, from which the seeds are procured, may be the sooner ready for cutting in autumn. In common cases clover should not be mowed till it begins to turn brown; but as the farmer who has many acres in grass cannot cut it all exactly in the best season, he may begin first in that clover from which he expects to gather seed on cutting the second crop, and not wait till it has changed from red to brown. In other cases he should cut the thickest grass, that which is lodged or is in danger of lodging, in the first place. The thinnest should be cut next; and last of all that which is on a medium between thick and thin.

Some regard must be had to the weather in cutting grass for hay, especially if that grass is clover, which requires much attention and favorable circumstances to preserve. If the weather is wet and improper for haying, clover will, we are told, remain standing a fortnight, without sustaining any material injury by the shedding the leaf or the blossom; for the same weather which renders it improper to mow this grass, continues it in a growing state, and prevents the bloom from fading or dying away.

There are various modes of making hay described by authors on husbandry, some of which are too troublesome and expensive to be adopted in this country where labor is scarce. We shall state several methods, and leave it to our readers, either to take their choice of those, or to give the preference to something different of their own invention. The Farmer's Assistant says, "The best plan is, for the farmer to be at his mowing betimes in the morning; cut down as much as possible by nine or ten o'clock, by which time the dew will be off; then spread the mowed grass evenly, and about twelve turn it over where it lies thick; in the afternoon rake it into winrows, shake it up lightly that it may be the better exposed to the air; towards sun down make it into neat small cocks, and let

it remain so a day or two. If it be not then sufficiently dry, shake it out again on a small space of ground, and turn it over till it is dried; then cock it again, if necessary, and as soon afterwards as possible draw it in.

"But in order to save much trouble in drying hay, the application of from four to eight quarts of salt to the ton is recommended. It is found that hay, thus salted, can be well saved in a much greener state, and at the same time the benefit which the hay derives from the salt is more than four-fold its value."

It is observed by Dr. Deane, that, "Were it not for the labor and cost, a good way of hay-making would be, for the hay-makers to follow at the heels of the mowers, at least as soon as the dew is off, and spread the swarths evenly; turn the grass about the middle of the same day; make it up into cocks before night; open the hay, and turn it the next day; and so on till it be sufficiently dried, doubling the cocks if signs of rain appear. It will not commonly take more than two or three days to dry it, unless it be very green, or uncommonly thick and rank."

The practice of the best English, Flemish and French farmers, is to expose the hay as little as possible to the sun. It is carried in dry, but preserves its green color; and hay of two or three years old appears so bright that you would scarcely conceive it to be cured. Yet they preserve it for years, and value it the more for its age. In Scotland "the best managers disapprove of spreading out clover or rye grass hay. The more the swarth is kept unbroken, the hay is the greener and more fragrant."

When the grass is thin, and somewhat dried before it is mowed, it may be cut in the forenoon, and raked in the afternoon of the same day, and by standing two or three days in the cock, will be sufficiently dry, without any further trouble. If rain fall in any considerable quantity, these cocks will require to be opened and exposed to the sun for a few hours. If a small quantity of rain has fallen, it may be enough to pull out some of the hay round the bottoms of the cocks, or only on that side which was to the windward when the rain fell, and lay it on the tops. If the cocks are so situated that the water has run much under their bottoms, they should be turned bottom upwards, and trimmed at least; but it will most commonly be necessary to spread them abroad. When hay becomes too dry it should be carted either in the evening or morning, and when the air is damp.

"A very ingenious gentleman of my acquaintance does not permit his grass to lie in swarth but for an hour or two after it is cut, or no longer than till its wetness be gone, and it just begins to appear withered. He then gathers it into very small parcels, which he calls grass cocks, not more than a good forkfull in each; turns them over once in a while, about sun set is the best time; doubles them as they grow drier; and when the hay is almost dry enough, makes up the whole into large cocks. Grass which is thus dried will not waste at all by crumbling; nor will much of its juices evaporate. I have seen his hay, the flavor of which excelled almost any other that I have met with. The color of it, indeed, was rather yellowish than green, but that is a matter of no conse-

quence to the farmer, who does not send his hay to market. I cannot but think that in dry settled weather, this is an excellent method of hay-making; but in catching weather, perhaps a method which takes less time is to be preferred."* From the above Dr. Anderson's method is not much different. "Instead," says he, "of allowing the hay to lie, as usual in most places, for some days in the swarth, after it is cut, and afterwards putting it up into cocks, and spreading it out, and drying it in the sun, which tends greatly to bleach the hay, exhales its natural juices, and subjects it very much to the danger of getting rain, and thus runs a great risk of being good for little, I make it a general rule, if possible, never to cut my hay but when the grass is quite dry, and then make the gatherers follow close upon the cutters, putting it up immediately into small cocks, about three feet high each when newly put up, always giving each of them a slight kind of thatching, by drawing a few handfuls of hay from the bottom of the cock all around, and laying it lightly on the top, with one of the ends hanging downwards. This is done with the utmost ease and expedition; and when it is once in that state, I consider my hay as in a great measure out of danger; for unless a violent wind should arise immediately after the cocks are made, so as to overturn them, nothing else can hurt the hay; as I have often experienced that no rain, however violent, ever penetrates into these cocks but a very little way. And if they are dry put up they never sit together so closely as to heat, although they acquire in a day or two such a degree of firmness, as to be in no danger of being overturned by wind after that time, unless it blows a hurricane.

"In these cocks I allow the hay to remain until, upon inspection, I judge that it will keep in pretty large tramp cocks, &c. The advantages that attend this method are that it greatly abridges the labor, that it allows the hay to continue almost as green as when it is cut, and preserves it in its natural juices in the greatest perfection; for it is dried in the most slow and equal manner that can be desired. Lastly, that it is thus in a great measure secured from almost the possibility of being damaged by the rain."—*Essays on Agriculture*.

The Farmer's Manual says, "Whenever your clover has sweat and cured in the cock, so that you can select the largest stalks, and twist them like a string, without their emitting any moisture on the surface when twisted, you may then house your clover in its most perfect state. If you sow timothy or herd's grass with your clover, you may manage in this way for the first year with safety—the second year it will become about one half timothy, or herd's grass, and must be spread and turned gently, to preserve as much as possible the heads and leaves of your clover—the third year your clover will disappear, and the herd's grass must be cut and spread in the common mode; I say the common mode, for I presume that every farmer spreads his hay into three swarth winrows, (unless it be heavy English grass, of two or three tons to the acre, which will occupy all the surface of the field on which it grew to cure it;) this saves the expense and trouble of one raking, and that he spreads in the forenoon all the swarths cut before 12 o'clock, (leaving the swarths cut after

*Agricultural Report of Scotland.

*Deane's New England Farmer.

12 o'clock, to continue in swarth until the dew is off the next morning) and that he gets into cocks, before 5 or 6 o'clock in the afternoon, all the hay spread upon his field. The fermentation which hay undergoes by standing in the cock over night, not only sweetens the hay, but prepares it for a more rapid evaporation of its juices the next day, and will doubly pay the expense of cocking, besides the security it affords against bad weather."

The following methods of preventing hay from heating in the mow, are from the publication last above quoted.—"Let your bays be open under the bottom for a free circulation of air; fill several large bags with hay, set them erect upon the floor of your bays; place the hay around them with as little treading as possible; raise up your bags with the rise of your mow, and when your mow is finished, remove the bags: these openings will serve as ventilators, and secure your mows from heating. If you reserve your wheat or rye straw for this purpose, and cover your clover occasionally as you mow it, with straw, your straw will not only prevent your mow from heating, but imbibes the moisture of your clover, and become valuable food for your horses and cattle."

"Salt hay, in this country, has usually been hurt by lying too long in the swarth. The method in which I have treated it for several years, is to cock it the next day after it is cut, and put a layer of some kind of dry straw between load and load of it, in the mow, to prevent its taking damage by over heating. The straw contracts so much of its moisture and saltiness that the cattle will eat it very freely, and the hay is far better than that made in the common way."

The following is from a communication to the Bath and West of England Agricultural Society, made by a gentleman by the name of LEWEN TUGWELL, and was published in the 12th volume of the papers of that Society. The volume itself we have not been able to place our hands on, and the Extract and succeeding remarks are obligingly furnished us from the minutes of a gentleman, to whom we have heretofore been indebted for favors connected with the objects of our publication; and whose literary and scientific labors have made valuable additions to the stock of public knowledge in the departments of Agriculture and Domestic Economy.

THE EXTRACT.

"In one corner (of the fire place) is a small stove for a boiler, or steam-kettle; or what would be infinitely preferable, but which, unfortunately, is not known to the lower orders of society, Papin's Digester. This culinary article being capable of raising heat in water to every requisite temperature, by its means may be prepared the most economical soups, Irish stews, bonillies, &c. drawing even from bones (otherwise thrown away) the most nourishing jellies, and extracting from them every nutritive particle."

"I purchased one of Papin's Digesters, at the recommendation of a lady (who from a most emaciated and exhausted state, bordering on consumption, was restored to sound and vigorous health by bone-jelly) and found it merited

every praise she had bestowed on it, producing excellent soups and jellies from materials before thrown away."

"In the other corner is placed an oven made only of one brick in thickness ($2\frac{1}{2}$ inches) both at bottom and sides, and not more than one in breadth ($4\frac{1}{2}$ inches) on the top; the whole to be bedded and surrounded on all sides, above and below, with four inches of well-rammed wood ashes."—"Wood ashes being a bad conductor of caloric [or matter of heat] and thence keeping in all heat, such oven will not require more than a third part of the fuel usually consumed in the operation of heating. I had once an oven that being surrounded, and in continuity, with very thick walls on every side, and into whose substance the unseen fire [heat] passing in continual progress, it required twenty faggots to heat it! Of this I soon grew tired, and built another as above described, of the same dimensions, and which (the fire [or heat] not being suffered to pass beyond a single brick) would be heated at any time (although divested of previous warmth) with three of such faggots, and generally in about a sixth of the time of the former."

"As small sized ovens are made at the potteries in one entire piece, it would be singularly appropriate to bed them in these ashes, to prevent a migration of their heat beyond their own external parts. The fire place of the above Digester may also be surrounded with the same non-conducting substance."

A few remarks on Mr. Tugwell's statement may perhaps be useful. I suppose the wood-ashes must be made a little damp, to admit of their being "well-rammed." Admitting the non-conducting power of ashes, some might apprehend that the single tier of bricks forming the oven, would be incapable of receiving heat enough to bake a batch of bread; but I have found it sufficient (in a small oven constructed on Tugwell's plan,) thoroughly to bake pan-loaves of rye and Indian meal bread. Consequently it must be abundantly adequate to bake loaves of wheat meal. In constructing the small family oven, after it was formed with a single coat of bricks, I directed the mason to commence laying the exterior coat, leaving a space all round (excepting the mouth, of course) of three or four inches for the ashes; and as he carried up the work, the ashes were filled in, as far as the commencement of the arching, when the whole top of the oven received the coat of ashes; and then the brick work was laid over and completed it. In a word—two ovens were constructed, with three or four inches of rammed and pressed wood ashes in the space between them. The door of the oven was of soap stone, hung by a pair of hinges, shutting close into the rebates (commonly pronounced *rabbets*) of the jambs and head-piece (also of soap stone, which formed the mouth of the oven) and fastened with a latch.

Mr. Tugwell's oven must be singularly well adapted to the use of Bakers; and I hope some of them may be induced to make the experiment, and test its efficacy, as stated by him.

A well informed man, who before our revo-

* Dr. Papin, a French physician, published a description of his Digester in 1681; as you may see in Rees' Cyclopaedia, article PAPIN. Though not introduced into the kitchen, it appears to be still used in chemical and philosophical experiments.

lution had been a master-baker in Philadelphia, once told me, that a very material portion of the profits of his business, which was extensive, arose from his saving of fuel—for he never suffered his ovens to become cold. That is, batch succeeded batch with so short intervals, that a small quantity of fuel served to raise the requisite heat. And Count Rumford, in his account of the establishment formed under his direction for the poor in Munich, states, that the first heating of the oven took 366 lbs. of dry pine wood. The following batches required less and less; until for the 6th batch 74 lbs. of wood sufficed; that is about a fifth part of what was necessary for the first.

Massachusetts Agricultural Repository and Journal.

The last number of this valuable publication has just issued from the press of Messrs. Wells & Lilly. We have had time to give it but an imperfect and hasty perusal; but have seen enough to warrant the assertion that its articles are well written, and well selected, and cannot fail to prove profitable, as well as interesting, not only to the practical farmer, but to all who delight in the *Studies of Nature*, and wish to know by what laws her system of economy is regulated.

MASSACHUSETTS LEGISLATURE

Closed its session on the 14th inst. A journal of their proceedings is probably in possession of most of our readers, who would feel an interest in its detail.—There has been but little said, but as much done, perhaps, as the public good requires. The following are the titles of some of the acts, not included in our last:

An act to incorporate the Bunker Hill Monument Association—to continue in force for the term of five years an act entitled an act for the encouragement of Agriculture and Manufactures—to incorporate the Merrimack Manufacturing Company—to incorporate the Boylston Medical Society of Harvard University—to incorporate the Newton Factories—to incorporate the West Boylston Manufacturing Company—for the relief of the Danvers Cotton Factory—to incorporate the Bristol County Agricultural Society—to incorporate the Braintree Manufacturing Company—to incorporate the Mansfield Union Cotton and Wool Manufactory.

FOREIGN.

An arrival at New York has brought advices from London to the 8th of May, which is ten days later than had previously been received. From the French armies in Spain we have accounts to the 30th of April. At that period D'Angouleme's corps remained at Vittoria. The right corps was at Burgos, almost half the distance between the frontier and Madrid. The left, under Marshal Moncey, had advanced some way in Catalonia, and was besieging Figueras; and the centre, under Gen. Molitor, had occupied Saragossa, and was still advancing. There has been but little fighting, and the Spaniards appear to be true to their system of not running the risk of great battles. Marshal Moncey having summoned the Governor of Figueras to surrender that fortress, the latter replied that he and the garrison were resolved to bury themselves under the ruins of the fortress rather than fail in the observance of their honor and their oaths. It has been reported that Russia has determined to take an active part in the war in favor of France, but nothing official on that subject has transpired. The Portuguese insurgents have been subdued or driven out of the kingdom. The Government of Great Britain has determined on preserving its neutrality, and to permit the two hostile nations to settle their disputes without her interference, and this determination has received the approbation of Parliament.

It was reported at Odessa on the 3d of April, that there had been another great fire at Constantinople, near the Seraglio.

RURAL SCENES.

Now summer comes, with flowers and verdure crown'd,
And high luxuriant grass o'er spreads the ground,
The laboring swain, with crooked scythe is seen,
Shaving the surface of the waving green;
Of Flora's mantle he disrobes the land,
And strips the meadows with a sweeping hand;
While with the mounting sun the landscape glows,
The fading herbage round he loosely throws,
To catch the ardor of the scorching rays,
Which Sol emits in fierce meridian blaze.
But, if some sign portends th' untimely shower,
The rustic prophet sees the threat'ning hour;
His sun-burnt hands the scythe and fork forsake,
And spotless nymphs may now embrace—a rake!
In petty mounds the fragrant harvest grows,
And spreads along the fields in lengthen'd rows.

Now when the height of heav'n bright Phoebus gains,
And pours a flood of glory o'er the plains;
When panting cattle seek the cooling lake,
And in the sultry pathway basks the snake;
O lead me, guard me from the burning hours,
Hide me, ye forests, in your closest bowers,
Where oaks majestic, branching arms entwine,
With beech and birch and evergreens combine,—
Spread parasols betwixt the earth and heaven,
And make at noon an artificial even—
Where flows the brawling brooks, for poet's themes
And waving ivies overhang the streams,
Stretch'd on a mossy couch give me repose,
Sweet sleep, which sloth or luxury never knows.

From the Monthly Literary Journal, published at Concord, (N. H.) by J. B. Moore.

INSTANCE OF LONGEVITY.

Communicated in a letter to one of the Editors by JOHN M. HUNT, Esq. of Dunstable.

Respecting old Mr. Lovewell, I have not been able to procure much information relative to his life and character; however, if we may rely on tradition, the following succinct account may be considered pretty correct. ZACCHAEUS LOVEWELL, of Dunstable, who lived to the remarkable age of one hundred and twenty years, was a native of England. He had the honor of serving as an Ensign in the army of Oliver Cromwell, the Protector, and, upon the overthrow of the Commonwealth, and the accession of Charles II. to the throne of his unfortunate father, he left his native country, emigrated to New-England, and settled somewhere in this vicinity. In the disturbances which so frequently armed the early settlers of this country against the savages of the wilderness, in which the offspring of Mr. Lovewell bore such honorable parts and acquired so many laurels, he remained an idle spectator, always maintaining the strictest neutrality. In his conversations with the Indians, they frequently told him of the many opportunities they had of taking his life, while lying concealed in ambush, but on account of his great friendship for them, together with the circumstance of his having white hair (for which scalps the French government paid no bounty) they never molested him. Not much is known respecting his family, excepting his three sons, who were all distinguished men, and worthy the remembrance of their countrymen. Zacchaeus was a colonel, and is mentioned by Dr. Belknap; Jonathan was known as a minister, representative and judge; and John was the celebrated hero of Pequawket.

Dunstable, May 23, 1823.

AUTHENTIC ANECDOTE.

Communicated by Dr. ISAAC STEARNS, of Dunbarton.

Capt. Caleb Page and Robert Hogg were among the first inhabitants of Dunbarton, and experienced all the privations, hardships, and fears, attendant on settlers of a new country.—Page removed from Atkinson; was somewhat above the generality of first settlers as to property; and withal was a very liberal spirited man, imparting his advice and assistance to his neighbors on many occasions. Hogg came from Ireland; was poor, ignorant of the customs of the country, and of the art of husbandry; but he had a good education for that time, and was often employed to instruct the children of his neighbors, by which means he obtained the appellation of *master*. An anecdote is related of these two men characteristic of the cordiality and friendship that subsisted among the early settlers of our country, and which was not suffered to be embittered by the most severe jests. Hogg, wishing to plant some potatoes, and having understood that people used manure to increase their growth, applied to Capt. Page to know what he must use, as he had no manure. Page told him that rotten hemlock would answer every purpose as a substitute. He accordingly applied a shovel full to each hill. The heat and dryness of this substance was such that it prevented the potatoes from vegetating. Being asked a few weeks after how his potatoes looked, Hogg replied, "They have denied the resurrection, for not one of them has come up." Mr. Hogg, however, soon found out the joke that had been put upon him, and without any ill-will waited for an opportunity to retaliate in his own way. Being sent to by Page for tobacco plants, he sent him a quantity of young mulens, which, when young, bear a great resemblance to tobacco plants. Page had them very carefully set out, when lo! instead of tobacco, he raised a fine crop of *mulens*. At harvest-time, Page ordered his men to fill a cart body full of potatoes and take over to neighbor Hogg; this was accordingly done. Master Hogg likewise, sent Page a large roll of *home* raised tobacco.—*ibid.*

ANIMAL INSTINCT.

In the "Introduction to Entomology," by Kirby & Spence, vol. ii, p. 502, the following very remarkable instance of the power of discovering home, exhibited by an ass, is communicated on the authority of Lieut. Alderman, of the royal engineers, who was personally acquainted with the facts.

"In March, 1816, an ass, the property of Capt. Dundas, of the royal navy, then at Malta, was shipped on board the 1ster frigate, Capt. Forrest, bound from Gibraltar for that island. The vessel having struck on some sands off Point de Gat, at some distance from the shore, the ass was thrown overboard to give it an opportunity of swimming to land; a poor one, for the sea was running so high, that a boat which left the ship was lost. A few days afterwards, however, when the gales of Gibraltar were opened in the morning, the ass presented himself for admittance, and proceeded to the stable of Mr. Weeks, a merchant, which he had formerly occupied, to the no small surprise of this gentleman, who imagined that, from some accident, the animal had never been shipped on board the 1ster. On the return of this vessel

to repair, the mystery was explained; and it turned out, that Valiante (as the ass was called) had not only swam safely to shore, but, without guide, compass, or travelling map, had found his way from Point de Gat to Gibraltar, a distance of more than two hundred miles, through a mountainous and intricate country, intersected by streams, which he had never traversed before, and in so short a period, that he could not have made one false turn. His not having been stopped on the road, was attributed to the circumstance of his having been formerly used to whip criminals upon, which was indicated to the peasants, who have a superstitious horror of such asses, by the holes in his ears, to which the persons flogged were tied."

CATERPILLARS.

The following paragraph is from the Woodstock (Vt.) Observer, of June 10th.

"Many of the orchards in this vicinity are suffering from the visitation of caterpillars.—These vermin infest the apple, plum, cherry and other fruit trees, in some instances build in their nests upon them, and in others assail them in companies, devouring the leaves and then quitting them. A similar species of worm preyed upon the trees on the west side of the mountain last season. There it is said the travelled in a direct line, destroying the orchards that fell in their way. As a preventive, it is recommended to put upon the tree circle of tar, which will prevent the ascent of the caterpillar, and preserve the foliage on trees where the worm is not bred."

Simplicity and Integrity of the Swiss Mountaineer.

A peasant named Frantz, came one evening to look for Gasper who was mowing a meadow and said, "My friend, this is my harvest; do knowest we have a dispute about this meadow we know not to whom it properly belongs; I decide this question, I have collected the judges at Schwitz; come then tomorrow with me before them." "Thou seest Frantz, that I have mowed the meadow, I cannot be absent." "Alas! I cannot send away the judges, who have fixed on this day; indeed we should have known to whom it belonged before it was mown." The had some little controversy on the subject; but at last Gasper said, "I will tell thee what thou shalt do. Go tomorrow to Schwitz; give the judges my reasons and thine; and I shall save the trouble of going myself." On this agreement Frantz went to plead for and against himself, and threw out the reasons on both sides as well as he could. When the judges had decided, he went to Gaspar: "The meadow is thine—the sentence is in thy favor."

People the earth with such men, and happiness will dwell there!

THE MILLER AND PAINTER.

A miller at P—, who lately quitted his mill to keep a public house, sent for a painter to paint him a sign, which he would have the miller say. "I must have the miller looking out of the window." "It shall be done," said the painter. "But as I never seem to be idle, you must make him pop in his head if any one look at him. This also the painter promised, and brought home the sign. "It is well done, but where is the miller?" "Oh," says the painter, "he popped in his head when you looked."

NEW ENGLAND FARMER.

PUBLISHED BY THOMAS W. SHEPARD, ROGERS' BUILDINGS, CONGRESS STREET, (FOURTH DOOR FROM STATE STREET.)

Vol. I.

BOSTON, SATURDAY, JUNE 26, 1823.

No. 43.

From the Mass. Agricultural Journal, for June.

THE MODE OF MAKING CIDER ADOPTED BY THE RELIGIOUS SOCIETY AT CANTERBURY, NEW-HAMPSHIRE, COMMONLY CALLED SHAKERS.

[It is with great pleasure we insert this article, not only on account of its intrinsic merits, which are great, having all the clearness, precision, and simplicity which you would expect from men so well skilled, and who make the best cider (it is said) in New-England, and who, in every thing they undertake are eminently successful; but because it gives us an opportunity of speaking of the admirable example set by this description of persons in all that relates to agriculture, horticulture, and manufactures. With their peculiar tenets and ceremonies, an agricultural work has no concern; it is its province to recommend excellent examples of neatness in cultivation, and in care, and caution, and delicacy in manufacturing articles important to the farmer. It will not be questioned, that the Shakers have set a most praise-worthy example—not of industry, society, and neatness merely, but of exactitude. They undertake nothing in which they do not succeed better than their neighbours; and the secret of their success will be found to consist in their system of order, and the thorough and effectual manner in which every thing is performed. It is highly probable, that this system (should it continue to maintain its ground) will finally furnish the states in which they live, with the best and purest seeds, with the neatest and most faithfully manufactured implements. We hope, that other sects of christians will shew, that there is nothing peculiar in the opinions of the Shakers which should produce of necessity these happy and honourable results, and that they will all strive to "have every thing performed decently and in order." We hope to be able to reply to the queries of the Shakers, as to the manufacture of woad, or rather its preparation from the leaf, for the immediate use of the dyer. They will be pleased with the letters on that subject, of Gen. Dearborn, and Mr. Crowninshield.]—*Ed. of the Mass. Agr. Rep.*

To John Prince, Esq. Treasurer of the Massachusetts Agricultural Society.

CANTERBURY, March 24, 1823.

Much respected Friend Prince,

I recently received your very liberal and worthy favor of the 22d ult. for which I feel a grateful acknowledgment, and hope to make you some compensation whenever you call on us again. We were very glad to hear of your safe return home.

The No. of the Journal containing Gen. Dearborn's letter on woad, we have had; but our clothier having cultivated this plant the last season with success, is now in quest of information how to manufacture and prepare it for use. He has respect to a treatise to which the General's letter refers.

As to experiments and improvements to communicate to the Agricultural Society, be assured we feel much indebted to you, and also to Esq. John L. Sullivan, for your liberality, and should be willing to communicate any thing in our power, that would be beneficial to mankind; but as our minds are not so intent on natural and external things as on an interest in Christ, and as our agricultural pursuits and improvements are so small and simple, we consider ourselves inadequate to say much on that subject.

However, there are two or three small improvements we shall mention for your consideration, having been under our experience for some years; and which we find to be beneficial to us, and from which, if you and others can

derive the same benefit, we shall feel ourselves amply rewarded for giving the following hints.

1st. The process in making and refining cider in order to have it good and wholesome, is so simple, (though important) that many people entirely overlook it, supposing the mystery so deep, as to be entirely out of their reach: and others, perhaps, tenacious of the customs of their forefathers, shut their eyes and ears to any improvement, however propitious to their interest and comfort; such will probably be contented to smack over their ill-flavored and unwholesome beverage through life.

Now, friend Prince, if we should explain what we know respecting the management of cider, some people would laugh, and say they did that and a great deal more: and I suspect they do, and add many more ingredients, such as water, pomace, and rotten fruit; and perhaps something more from fowls, beasts, and vermin, none of which makes the cider any better.

We shall not hesitate to give it as our decided opinion, that cool climates are much more favourable to cider than warm. However, what greatly contributes to the goodness and delicacy of cider, is the cleanliness of the casks which contain it. In fine, all utensils used in making cider, should be kept clean, and not suffered to get sour through the whole process; even the press should be frequently rinsed down, during the time of making cider, to prevent sourness or a change in the cider.

To clean casks which have been used for cider, we take them from the cellar as soon as convenient after the cider is out, (reserving the lees for stilling) and rinse each clean, first with a pailfull of scalding water, then with cold, leaving the casks with the bungs down for a day or two, or till dry. Then we bung them tight, and return them to the cellar, or some convenient place (not too dry) for their reception. Previous to filling these casks with cider the ensuing season, we scald and rinse them again, as above. Foul musty casks ought to be committed to the fire. Hogshheads or large casks are the best for cider, especially those that have recently been used for rum or other spirit.

Apples that drop early we make into cider for stilling, it being unfit for table use; the spirit of which, together with that of the lees, we return back to our store cider at the time of racking, which is generally about the first of January. Cider made of apples before they are fully ripe, we deem unfit for drinking: and even when ripe, if they are made into cider during warm weather so as to produce a sudden and rapid fermentation, the cider will unavoidably be hard and unpleasant. The fact is, the slower cider is in fermenting, the better it will be at any age: consequently the later in the season it is made, and the cooler the weather (if the business can be conveniently performed) the better; especially for long keeping. However, this is a cold work for the fingers, unless pressed in a rack, which is the best method.

About the first of November we think a suitable season, if the weather be dry, to gather and put under cover apples for store cider.—

After lying in this situation till mellow, (not rotten) we commence grinding.

Doubtless good cider for early use, or perhaps for the first year's drinking, may be made previous to this time; but cool serene weather should be chosen for the business.

The grinding trough should be spacious enough to contain a cheese, in order to admit the pomace (if the weather be cool) to lie over one night before pressing. This method contributes much, both to the colour and quantity of the cider.

In the morning press it out gradually, and put it up into the casks through straw, or rather a coarse sieve, fitted and placed within the tunnel: after which, we convey it immediately to a cool cellar, leaving out the bogs till the fermentation chiefly subsides, which may be ascertained by the froth settling back at the bung-hole. We then drive in the bungs tight, leaving a small spigot vent a while longer, if need require, to check the pressure, which must finally be made air tight.

About the first of January, we rack it off free from the lees into clean casks. Those that have been recently used for spirit are to be preferred. But otherwise; having drawn off one cask, we turn out the lees, scald and rinse the cask as above; add three or four pails full of cider; then burn in the cask, a match of brimstone attached by a hook, to the end of a large wire fixed in the small end of a long tapering bung fitting any hole. When the match is burnt out, take off the remnant; apply the bung again, and shake the cask in order to impregnate the cider with the fume. Add more cider and burn another match. Then add from one to three gallons of spirit (obtained from the lees as above) to one hogshhead; fill up the cask with cider, and bung it down air tight, and let it remain till it becomes of mature age.

Cider managed in this way will keep pleasant for years. We would not be understood to suggest a notion, that good cider cannot be obtained without the addition of spirit; especially for immediate use, or the first year's drinking; but the contrary. Yet spirit will give it a new and vigorous body, and insure its preservation.

To make matches for stumming casks, take strips of linen or cotton rags about 1-2 inch wide, and 3 or 4 inches long, dip the end of each in melted brimstone, to the extent of one inch.

2d. Another improvement, though very simple, we shall recommend, as having been highly beneficial to us for some years; that is, the preservation of vines, and other plants, from the depredations of bugs and insects, by means of wooden boxes. These boxes are made of thin boards, about one foot square, and 4 or 5 inches deep; covered with thin, loose-woven cloth, either of cotton, hemp, or linen, quite as thin as a coarse meal sieve. The cloth should be oiled over with linseed oil. The boxes are placed and kept over the hills till the vines become of sufficient growth and strength to bid defiance to the depredations of those devouring insects. This is the cheapest, best, and finally the only effectual method that we have ever found to preserve our vines from destruction.

FOR THE NEW ENGLAND FARMER.

These boxes with careful usage will probably last for the term of 15 or 20 years. They should be put under cover when they are not in use; and it would be well to repeat the oiling of the cloth tops once in 4 or 5 years with train oil.

3d. Another thing having been under our experience for many years, we find to be very beneficial to us in our joint situation; that is, it saves considerable manual strength and hard labour, viz. the taking off hay from the load and placing it on the mow by a horse, with what we call grabs or hooks, fixed to a tackle, which is suspended to the ridge pole or rafter of the barn, nearly over the centre of the mow; and to the rope of which (passing under a truck) a horse is hitched and ridden by a small boy directly forward through the yard. We frequently take off a ton of hay at four or five draughts, each of which being suspended by a rope, is, by two hands easily swung, as the rope slacks, to any part of the mow. The rope is held by the loadman, while the horse turns about and commences his trip towards the load. However, we could not recommend this method to farmers who cut hay on a small scale, or where but few hands are employed.

At any rate, we should rather prefer the location of a barn (when practicable) on the side of an hill, so as to facilitate a passage over a floor across the beams. This method we have proved, and find it an excellent plan. I presume one man in this situation, will get off more hay in the same time, and with less fatigue, than four would in the ordinary way.

4th. And lastly; we have a machine (moved by water) for thrashing and cleaning grain; which we can, with confidence, recommend to great farmers. This machine will thrash and winnow unusually clean, at least 100 bushels per day: it has done 16 bushels per hour. Thus it not only saves much time and hard labour, but also enables us to secure our grain from vermin and other waste, immediately after harvesting. Although (as we understand) some sagacious speculator has copied a model, or nearly a model, from our machine, and obtained a patent for the same, as having been his own invention; yet we think we are fully able to prove our right of claim to the invention, it being the result of our own mental researches.

We never saw nor heard of any thing similar, previous to our building the above mentioned machine for our own use, in the summer of the year 1819; to the benefit of which, we make you and every other man freely welcome, having never intended to make other people tributary to our avarice, by securing a patent for this, or any thing else, that might be of service to mankind. However, as we have not room here to give a plan, nor even a minute description of this machine, you will please to call and see it the first opportunity, and judge for yourself of its utility.

Although water may justly be considered by far the best power of motion, yet I presume this machine may be so constructed as to operate by horses. The cost, exclusive of a building to contain the grain, is probably about \$100.

I am, with due respect, your friend,

FRANCIS WANKLEY.

P. S. One of your former numbers speaks much in favor of fiorin grass; if you think it to be profitable, we should like to procure means for propagating it; also a small paper of Mangel Wurtzel seed.

MR. EDITOR.—It has become a general practice among farmers to keep Swine shut up in small yards for convenience, and the making of manure. This method I have adopted, and find the advantages to be very great. I still find it necessary that hogs, thus confined, should be constantly fed during the summer season with green food, as their nature is such that they require it, and I am decidedly of the opinion that they do much better for being thus fed. I have sometimes cut clover and other kinds of grass, and thrown it to my hogs, which they eat very well, but I have more generally practised feeding them with swamp brakes, which they devour greedily, and which I believe do them as much good as clover or any other kind of grass.

I go to a swamp once in three or four days, and gather a quantity of brakes, and deposit them in my cellar in order to keep them in a green state. Once in a day I give as many of them to my hogs as I think they will devour.

My method of gathering them is to pull them up, being careful to get the heart or pith which grows in the centre at the bottom. This kind of brakes frequently grows in meadows and sometimes on hard land among grass, and if pulled in June (taking care to get the heart or pith) they rarely if ever grow again.

A FARMER.

Worcester, June 23, 1823.

FOR THE NEW ENGLAND FARMER.

MR. EDITOR.—Having taken an excursion of a few days into some of the towns in Maine, I have been induced to examine a number of cornfields; in many of which I have found a great number of our secreted destructive enemies, the *wire* or *chit worm*. This I presume is their returning abundant year. I found most farmers insensible of the approach of the lurking foe. One farmer in Durham, with great labor and care, opened every hill in a field of two acres, and found on an average a dozen in a hill. He replanted it on Saturday last with seed soaked in an infusion of the spirits of turpentine. I examined a number of hills with him yesterday, the 4th of June, and found on an average seven to a hill; the last planted kernels as yet unvounded. I took an hundred of these hardsided destroyers of our prospects of hasty pudding, and gave them a snug birth in a snuff box (being entirely destitute of the comforting powders,) and distributed them as follows:—I took out fifty, and gave the remainder a sprinkling of earth for bedding in the box. Now as I am neither doctor, chemist nor farmer, I take courage to trouble you with my *guessing* experiments, solely to awaken the attention of the philosopher and thinking farmer to a subject of deep interest to this country. I took three spoonfuls of the decoction of the sweet or white elder, that had been boiled one hour; put it into a common white saucer, and then put in a small piece of earth in the centre. I then put in a number of the worms; they still live, but have lost the power of locomotion;—they have now been in twenty-four hours. I then put six or seven into another saucer with three spoonfuls of the juice of elder only; they died in eighteen hours. I put in the same number with two spoonfuls of lime, so wetted that water stood round the edges of the cup; they

died in about six hours. With three spoonfuls of juice I put one of lime; they died in about twelve hours. With three spoonfuls of water, and one of salt, they lived about eight hours. In the solution of copperas, a piece as large as a robin's egg, and four spoonfuls of water, they were lively at twelve last night; I found them dead this morning, June 6th, at 5 o'clock; they of course died between twelve and seventeen hours. The fifty remaining in the box appeared to be in excellent health. I put thirty kernels of corn into each saucer, which I intend to plant this morning, and to put a goodly number of worms into each hill, hoping to learn whether the corn will grow after such trials, and whether the worm will touch it; whether that will operate as the greatest security against his depredation, which in the shortest time will destroy him. This I know not; but these experiments were founded on the consideration, that wild animals, birds and insects, almost universally avoid everything poisonous in the natural and simple state. It is generally by compounds that instinct is deceived, but by the juices of some simples many creatures are instantly allured to destruction. For example, take a few kernels of the *ergot* or *spurred rye*, steep them a short time in water, pour it into a plate and set it on the floor in a season; all the flies in the room in a few minutes will be found dead at the seducing cup. This is probably the most powerful poison found in Maine. I have it from unquestionable authority that a girl in Topsham, out of banter, undertook to eat it, but before she had finished two kernels was most severely emeticised. The theory is very plausible, that this was the origin of the dreadful and sometimes almost uncontrollable spotted fever, that took its rise in Worcester county, Mass, a rye country, and which extended through New Hampshire and Maine. Where the fever raged most, the spurred rye was most abundant. For myself I always have it picked out of rye before I send it to mill. I had rather give it to flies than eat it myself.

Much, I am told, has recently been written on the wonderful powers of the sweet elder, by men of the first science in Europe. One says: "Only whip your tender plants, infested with insects, with the bough of elder, they instantly disappear; sprinkle them with its juice, they will not return; lay a leaf at the hole of a mouse, he will never come out." If so powerful on the surface, may it not have some effect beneath it? I have induced many farmers to replant their corn soaked at least twenty-four hours in the elder, after the water is boiled half away. Should this succeed, it will be important to the country; should it fail, it will not hurt the corn.

It should be asked why I intrude unproved theorems on the public? I answer, it is more to warn the farmer of his unseen danger, than in any way to direct or advise a remedy. The spring has been late, and in my opinion there is a great prospect of another cold season. Let the farmer recollect 1806, 1812, and 1816, what insects then appeared, what crops he raised, and should he be necessitated to replant, oats and potatoes may yet yield a good crop.

I have this moment received communications from two farmers in Durham, with much satisfaction. One has planted four quarts of corn on *ubble* ground, not soaked; one quart soaked in water forty-eight hours, with half a gill of

spirits of turpentine. The other did the same on a new ploughed ground. The unsoaked of both almost entirely cut off. The soaked of both as come up untouched and vigorous.

I have been ignorant of the quantity of turpentine that may be used with safety. Here seems to be a good demonstration.

The brown bug, or smaller beetle, appeared on the 15th of May, and the air is literally filled with them in the evening. They sometimes give you an uncivil knock in the face in the evening, as if they had lost their way.—They are now depositing their eggs to rear the mischievous grub worm, that cuts corn, cabbage and most vegetables at the surface. The young, it is said, arrive at maturity in four years, then return to the bug again. *Quere*—Is not this the returning year of this plodding creature, that seems wantonly to cut off your plant, without making use of it? A.

FOR THE NEW ENGLAND FARMER.

M. Farm, June 21, 1823.

MR. EDITOR—I saw a request in your paper, page 347, that some person would give a plan of a Cow House, and as I have seen no answer will give you a plan of mine; not that I think it perfect, but that every subscriber is in duty bound to see that all inquiries made through our paper are answered in due time. It is 30 feet long—stanchions are from the centre of each 3 feet apart—crib 3 feet wide—a rack on the side of the crib next the mow one foot wide, which is one foot from the floor, that the meagrs may be easily put under—the slats in the rack perpendicular—a board in the bottom of the rack slanting, that the seeds, &c. may fall next the cattle—width from stanchions to side of the barn 10 feet—bed must be varied in width as the cattle are long or short—trench nine inches lower than the bed, and nine inches lower than the walk back of the cattle; or half the depth will answer there, and is preferable, particularly if the barn is low posted. Stanchions I think far preferable to bows for security, but cattle lie easiest in bows. My cows leads are all parted with a partition four or five feet high, which prevents all quarrels and eaching. Yours, &c. HERDSMAN.

From the Mass. Agricultural Repository.

ON A MODE OF DESTROYING INSECTS.

I take the liberty of indicating a method of destroying the rose-bug, and other winged insects, which are such nuisances in our gardens, and so destructive to the tender shrubs and plants, which was suggested to me by the following occurrence. Going into my garden one summer evening, with a lanthorn, to gather salad, I found, on my return to the house, that the lanthorn was covered with rose-bugs and other insects, which had been attracted to it by the light. This simple circumstance led me to the inference that the propensity of moths and all winged insects to fly at a light, will furnish us with the means of at least diminishing their number by suffering them to become SELF-DESTROYERS.

It is well known how troublesome they are by thronging our rooms in the evenings, where a candle or lamp is burning; how they fly round it, and scathe their wings in its blaze; and how they pelt against the windows, which were obliged to shut in order to exclude them. Now,

I conceive, that availing ourselves of this lure, we might kindle small fires in different parts of our gardens, near the vines particularly which are annoyed by these voracious depredators, and they would precipitate themselves into the blaze. A kind of flambeau might be made, by winding round one end of a stick about a foot and a half long, old rags, or swingled tow, dipped in tar or melted brimstone. Let this be stuck into the ground, and set on fire with a candle; and it will continue burning a considerable time, and prove the funeral pyre to myriads. These lights might be so placed as not to injure the adjacent plants, nor endanger surrounding buildings, as no sparks would fly from them; and, if any fears are entertained, they might be watched till they were burnt out, and the effect would be thus ascertained, in order to justify the repetition of the experiment.

I have often found the difficulty of freeing my plants from the ravages of insects, especially of the coleopterous class, because they have a kind of coat of mail covering their wings that sheds off whatever is sprinkled over them with the purpose of destroying them, and because they occupy generally the under sides of the leaves, or frequent high branches where they are inaccessible: but they would be tempted to fly down to a blaze. The various kinds of moths, (parents of most destructive broods,) and the winged aphides, those great destroyers of the grape vine, would more certainly be lured by a bright flame to inevitable destruction.

Perhaps a flambeau, at the end of a long pole, might be held up near to apple trees when in bloom, and be the means of destroying many of the small flies which deposit those eggs in the opening blossom that form the worm generated in the core of the fruit.

In the early summer I have observed immense swarms of minute black flies, just at evening, around the plum trees; and suspect them of being the occasion of those galls, or excrescences which occasion such injury to the tree. If so, the expedient which I have suggested, may be tried to advantage upon them.

These remarks, are, perhaps, too trivial to be communicated to the public in the Agricultural Repository and Journal. If, however, you think that they may serve to suggest expedients to those who have leisure and opportunity to make the trial, you will please make that use of them.

With affectionate regards, your friend,

THADDEUS MASON HARRIS.

The following recipe is very important indeed if its efficacy has not been over-rated. It sometimes happens that a remedy is applied to a disorder which is already yielding to the operations of nature, and the medicine has the credit of effecting a cure which would have taken place if it had not been applied. And it may happen that an application may be made to a tree, vine, or other vegetable, for the destruction of insects, at the precise point of time when they would have died or have ceased their ravages without such application; and in that case, the thing applied is thought more useful than it is. We hope that nothing of that kind has taken place in the experiments related in the following article; and that a little sulphur introduced

into the body of a fruit tree will preserve it from caterpillars, canker worms, &c. but we shall entertain some doubts on the subject, for the reasons above mentioned, till farther experiments shall prove or disprove the efficacy of the supposed specific.—Ed. Farmer.

From the second volume of the Memoirs of the Board of Agriculture of the State of New York.

On preventing the destruction of Trees by Caterpillars.

[By George Webster, of Albany.]

From my experience, I am fully satisfied our fruit and forest trees may be preserved from that dreadful insect, the caterpillar, in a very sure and easy way. In the year 1805, the large elm at our corner was nearly stripped of its leaves by a small caterpillar. Various modes to destroy them were made use of, such as covering the body of the tree with tar, fish oil, and burning their nests, but without any good effect.—Some day in the month of July, I was standing at our door, when a gentleman from Niskayuna was passing by. He accosted me in words like these:—"George, 'tis a pity to lose so fine a tree." In answer—"We have made use of various articles to destroy them, but without success."—"Send," says he, "and get a little sulphur, and bore into the tree about six inches, and fill it with sulphur, and my word for it, not a caterpillar shall be seen after forty-eight hours." "Will you stay and see it done?"—"I will," said he. The hole was bored, the sulphur put in, and a piece of wood the size of a cork drove in very strongly, to prevent the sap or sulphur oozing out. In a less time than he mentioned, there was not the vestige of a caterpillar on the tree. Soon after, a large caterpillar appeared on our poplars, in front of my house: every tree was served in the same way as the elm had been, and the result the same—while my neighbors cut down those fine trees, because they were very much alarmed that the insect was that very venomous reptile called "the asp." A few days after I discovered that a very beautiful plum-tree in my yard was attacked by the caterpillar: the same course was applied, and the result the same. I have followed this practice every year since 1805, when I discovered these insects on my trees, and there has never been a caterpillar on my trees after forty-eight hours. It has been tried in New York and Pennsylvania, where I have been present, and in the western parts of this state. In no case has it, to my knowledge or belief, failed. Two men are sufficient to go through an orchard or forest of 200 trees in a day.

Not.—It is possible that the mode in which the sulphur is put in the tree, might be easier communicated by words than on paper.

P. S. I have strong presentiments in my mind, that if applied to our peach, plum or cherry trees, it would prevent the black rust.

Rust of Wheat.—Mr. Isaac Young, of Georgia, mixed rye amongst his seed wheat, and thus escaped the blast of his wheat. It was repeatedly tried, till he was convinced of its efficacy; and then he sowed five acres with wheat, surrounded with a belt of 25 feet breadth of rye; this also succeeded; and being repeated, is found a certain security to the wheat.—Bordley's Husbandry.

From the Mass. Agricultural Repository for June.

Reflections on the importance of steeping Seeds in various fructifying liquids, which has been the subject of much discussion.

Men have been always prone to devise, and adopt some ready and mysterious way of hastening perfection in all the arts. There is no one of them, that has not at times boasted its philosopher's stone—some expeditious mode of dispensing with what Providence has made indispensable to the attainment of all good in this world, viz. constant, unremitted, intelligent exertion. However futile and ridiculous these endeavors may have been in other arts and sciences, (and they are in this age of true philosophy regarded, as they ought always to have been, as the chimeras of enthusiasts,) in the art or science of agriculture, they are eminently preposterous and absurd. There is in this art, no easy and compendious road to success. The faithful division of the soil by repeated and incessant labor, the application of proper manures or composts to enrich it; to impart to each particular species of soil, the elements in which it is found to be deficient—these are the great secrets, and the only secrets, of successful cultivation. While we were young proficient in this science, we read with wonder, not unmixed with incredulity, the surprising effects of steeping seeds in various liquors, impregnated with substances, which a vain philosophy, always more satisfied with novelty than with truth, had decided to be the best food for plants. As we have grown older, we have found that the most rational physiologists are not yet agreed as to what is the proper food of plants. They have contented themselves with simple facts, that some plants prefer one species of soil or manure, and others prefer a very different one. And they have endeavored, as far as possible, to give to each plant the kind of soil and manure in which, and by which, it is found to flourish best.

The supposition, that so small a seed as that of wheat or Indian corn can imbibe from being steeped for twenty-four hours in any liquor, however fructifying or favorable, a degree of force, which can enable it to withstand the effects of an uncongenial soil, or to produce more abundantly even in a congenial one, savors too strongly of mystery to be readily adopted by any rational mind. We are not disposed to deny any influence whatever to such experiments; but we think it must be very limited, and that it has been grossly overestimated. It would be indeed strange, if there were not some quackery in this art, as in all others, and while we have at least one hundred medicines, which will cure every disease to which man is subject (though no visible diminution of disease has been as yet produced by any or all of them,) agriculture should not also have its universal panacea, competent to eradicate all disease, and to produce the highest possible state of vegetable health. It is with no small pleasure that we are able to state, that Evelyn, the Bacon of philosophical agriculture, had a thorough disbelief in this short hand mode of producing luxuriant and prolific vegetation. In speaking of the soils in which forest trees flourish, he gives this sly rebuke to the believers in fructifying steepes. "Rather, therefore, we would take notice how many great wits and ingenious per-

sons, who have leisure and faculty, are in pain for the improvement of their heaths and barren hills, cold and starving places, which causes them to be despaired of and neglected, whilst they flatter their hopes and vain expectations with fructifying liquors, chymical menstrua, and such vast conceptions—at the same time, that one may shew them as heathy and hopeless grounds and barren hills as any in England, that do now bear, or lately have borne, woods, groves and copses which yield the owner more wealth than the richest and most opulent wheat lands."

There is a strong vein of sarcasm and truth in these remarks, and they had their effect in covering England with valuable and beautiful forests and groves, as we now find it. It may be of some practical use to add the experience of the writer of this article. He planted some hills which consisted entirely of sand or gravel, and which would not furnish vegetables for the support of a single cow for six weeks in a year. It was represented to him by his neighbors that trees would not grow upon them. It seemed, indeed, to be a hopeless undertaking. Still he persevered, and the wood now growing at the end of fifteen years would pay, if cut down and sold to the bakers, for a sum equal to the price of the land; he believes, to double that price. But the most important remarks on this subject were made in a note by the editor of Evelyn's *Sylva*, Alexander Hunter, the author of the "Georgical Essays," a man of rare merit, philanthropy, and good sense. He goes at large into the question of the value and importance of steeping seeds, placing the question, as we believe, on its true and rational ground.

"The steeping of seeds," he remarks, "in prolific liquors, is not of modern invention.—The Romans, who were good husbandmen, have left us several receipts for steeping grain, in order to increase the powers of vegetables. In England, France, Italy, and in all countries where agriculture is attended to, we see a variety of liquors recommended for the same purpose. Good nourishment has ever been observed to add strength and vigor to all vegetables. Hence it was natural to suppose, that by filling the vessels of the grain with nourishing liquors, the germ with its roots would be invigorated. How far this is founded on just principles remains now to be examined. For my part," says Mr. Hunter, "I am not an advocate for steepes. All my experiments demonstrate that they have no inherent virtue. I have more than once sown the same seed, steeped, and unsteeped, and though all other circumstances were minutely alike, yet I could never observe the least difference in the growth of the crops. I confess that when the light seeds are skimmed off, as in the operation of brining, (or steeping in water saturated with salt, which is heavier than common water) the crop will be improved and diseases prevented, but these advantages proceed from the goodness of the grain sown, and not from any prolific virtue of the steep. I am happy in not being singular in my objection to steepes. Many philosophical farmers have been induced to quit their prejudices, and are now convinced, from their own trials, that there is no dependence on prolific liquors, though ever so well recommended. Some people have been hardy enough to persuade themselves, that the tillering of wheat, (its disposition to spread and send up many shoots from a single kernel) may be so

much increased by invigorating the grain (by steepes) that only one half of the seed will be required. Duhamel, one of the most accurate of experimental husbandmen, and a most excellent philosopher, speaks in the strongest terms against the practice of steeping, so far as it supposes an impregnation of vegetable particles. I shall not here repeat his experiments. I shall only observe, that they are such as any farmer may make; they are plain and conclusive. Good seed, when sown upon land in good tilth, will always produce a plentiful crop. The best grain impregnated to the full with the most approved steep, and sown upon land indifferently prepared, will forever disappoint the hopes of the farmer. I do not presume to condemn the practice in positive terms because my own experiments are against it. Other experiments may be opposed to mine. I shall therefore rest the whole upon a description of what happens to grain, after it has been committed to the earth. The subject is curious, and the discussion of it not very difficult. A grain of wheat contain within two capsules, a considerable share of flour, which, when melted down by the water, juices of the earth, constitutes the nourishment of the tender plant, until its roots are grown sufficiently large to absorb their own food. Here is evidently a store-house of nutriment, and of course the plumpest grains are the most eligible for seed. From repeated experiments, I am convinced that the plumpest seeds are always preferable to the small ones. I have sprouted every kind of grain in a variety of steepes, and can assure the farmer that the root and germ never appeared so vigorous as when sprouted in simple elementary water—an argument that the seed requires no assistance. The same steep, when applied in quantity to the soil, will undoubtedly invigorate the roots, and nourish the plant; but in that case it operates like other manures, and loses the idea of a steep. A nitre, and sea-salt, and lime, are generally added to steepes, I have constantly observed that their application rendered the radicle and germ sickly and yellow—a plain proof that they were unnaturally used at that season. Did the farina of the seed need any additional particles, it might be supposed that broth made of the flesh of animals would be most agreeable. [Probably founded on the fact that animal manure is the most powerful.—*Editors Repository.*]

"To be satisfied of that, I sprouted some grains in beef broth, and an equal number in simple water. They were afterwards sown, but I could perceive no difference in the crop. As to invigorating, or fructifying liquor having ever stood the test of fair experiment, we may venture to lay it down as an established truth, that plump seed, clear of weeds, and land well prepared to receive it, will seldom disappoint the hopes of the farmer."

We are not prepared to express a decided opinion in favor of Mr. Hunter's suggestions, though they derive great weight from the support of two such men as Duhamel and Evelyn.

There is one consideration which Mr. Hunter has certainly not pressed so far as he might have done. The bulk of the seed is so extremely small, compared with the roots and top of an plant (Indian corn, for example, whose root and tops probably contain from 200 to 500 times as much matter as the seed,) that it is incredible that any productive virtue (be it ever so

great) could materially affect the growth of a plant, which daily requires so much food. We thought the article ingenious, and we give it the preference, because it is in opposition to a long established opinion, founded in mystery.

NEW ENGLAND FARMER.

SATURDAY, JUNE 29, 1823.

NOTICE.

Gentlemen whose names are now on the list of subscribers to this paper are respectfully solicited to continue their patronage; and those who do not give us notice to the contrary, on or before the 15th day of July next, will be considered as subscribers for the second volume.

Farmer's and Gardener's Remembrancer.

MAKE GOOD BUTTER.—You may as well make good butter as bad. If your butter be of a good quality and well preserved, it will not only fetch more in market, but be more wholesome as well as palatable to consume in your own family.—We gave some remarks relative to making butter in our paper No. 2, p. 12, as well as in some other papers of a later date, but as we have learned from good authority that some of our subscribers are so careless and inattentive to their own interests that they do not preserve the files of our papers, and as particular directions of a complicated process might escape the memory even of an attentive reader, we shall repeat a part of our prescriptions, and incorporate them with others, which we believe will be found useful.

The dairy house should be kept neat, should not front the south, south-east or south-west.—An apartment in a sweet and well ventilated cellar will answer a good purpose to keep milk and cream in. Cheeses should not be set to dry in the same room where your milk is set, for they communicate an acid matter to the surrounding air, which will have a tendency to make the milk sour. The milk room and cheese room should therefore be separate apartments. It will be well to place your milk room, if possible, over a spring or brook, near the dwelling house; and you may have a stone floor, and channels in the floor to pass the water round near the inside of the walls. Into these channels the pans may be set, filled with milk, and surrounded by water. If water could be introduced into the milk room, so as to fall from some height on the pavement, it would likewise prove advantageous, as the waterfall and the evaporation it causes will contribute to preserve the air continually pure, fresh and cool. As the milk itself when brought in warm, will naturally tend to raise the temperature of the milk room too high, it is recommended to have an ice-house attached to the dairy, especially where the advantage of a current of water cannot be obtained. An ice-house would prove still more profitable if the dairy be situated near large towns, where the ice could be sold in summer. Ice may be perhaps as well kept in a common cellar, according to Mr. Nichols' mode given page 114 of our paper, as by any method

more troublesome and expensive. According to Dr. Deane, the temperature of the milk room should be from 50 to 55 degrees of Fahrenheit's thermometer; and the Complete Grazier says "where the temperature of the milk room has become affected by the carrying of newly drawn milk into it, it may be easily reduced to the proper temperature by suspending a small quantity of ice at a considerable height from the floor; and if, during winter, the cold should become too great, a barrel of hot water closely stopped, or a few hot bricks placed on the floor or table of the milk room will readily counteract its effects. But on no account whatever should a chafing dish with burning coals be used, as it will certainly impart a bad taste to the milk."

The proper receptacles for milk are earthen pans not glazed nor lined with lead, or wooden trays. Lead, copper or brass utensils, as well as earthen ware vessels glazed with lead, ought on no pretext whatever to be used; for the acid which is contained in milk, combines with these metals, and forms a poisonous compound with them. Sir John Sinclair recommends vessels made of cast iron, softened by annealing them in charcoal, so that they will not break by an ordinary fall, turned smooth in the inside, and laid over with a coat of tin to prevent the iron from coming in contact with the milk. These milk dishes are stated to be kept more easily clean than wooden vessels; and their superior power of conducting heat, cools the milk so rapidly that the Scottish farmers' wives, who have given them a fair trial, affirm that they throw up *one third more cream* from an equal quantity of milk.* Cast iron vessels, without being tinned, would give no poisonous quality to the milk, but they might render the produce of the dairy unpalatable.

"All dairy utensils ought to be most carefully scoured, first with hot water, and afterwards rinsed with cold, and kept in an airy place, in order that every possible degree of acidity may be removed. Should one or two scourings be insufficient, they must be repeatedly cleansed until they become entirely sweet, as the slightest taint or acidity may cause material loss."† Slate, according to some accounts, makes very good milk coolers, and perhaps free stone might answer as well.

The quality and quantity of cows milk greatly depends on the nature of their food. Potatoes, carrots and parsnips are recommended as causing cows to give excellent milk; and mangel wurtzel is highly spoken of for the same purpose. Cabbages, if sound, answer an excellent purpose, but the decayed leaves give a bad taste to the milk. It is thought best to milk cows three times a day if fully fed, and great caution should be exercised by the persons employed, to draw the milk from them completely, not only to increase the quantity of produce, but to preserve its quality. Any portion which may be left in the udder, seems gradually to be absorbed into the system, and no more is formed than enough to supply the loss of what is taken away; and by the continuance of the same mode, a yet farther diminution takes place, until at length scarcely any is produced. This last mode of milking is practised, when it is intended to render a cow dry.

* Agricultural Report of Scotland.

† Complete Grazier.

You should be cautious in your choice of persons to milk your cows; because if a cow be roughly handled, it not only causes pain to the animal, but induces her not to give down, or part with her milk, and such retention injures the cow sometimes very seriously, and always causes her to get into the habit of giving less and less milk at each successive milking, till rendered completely dry. When cows are *ticklish*, as the phrase is, they should be treated with gentleness; and if the udder be hard and painful, it ought to be fomented tenderly with warm water.

"After the milk is drawn from the cow, it should be carefully strained through a linen cloth or hair sieve, (Dr. Anderson prefers a sieve made of silver wires, on account of its superior wholesomeness) into the cream dishes, which should never exceed three inches in depth, though they may be made so wide as to contain any quantity required, and which ought to be perfectly clean, sweet and cool. If any ill flavor is apprehended from the cows having eaten turnips, &c. the addition of one eighth part of boiling water to the milk before it is poured into the dishes will effectually remove it.* When filled, the dishes ought to be set upon shelves or dressers, there to continue till the cream is removed. This should be steadily done by means of a skimming dish, if possible, without spilling any upon the floor, because it will speedily taint the air of the room, and the cream poured into a vessel, till enough be obtained for churning."

The Farmers' Assistant judiciously observes, "If new milk be kept as warm as when it comes from the cow, no cream will rise on it; but when sufficiently cooled, the cream separates from the rest and rises to the top. In order then to effect this to the best advantage, the new milk should be made as cool as possible, and the cooler it is thus made the more suddenly and effectually the cream will rise. To set milk pans made of tin in beds of salt would no doubt be useful, where the cellar is too warm; and to set all milk vessels on a floor, which is constantly covered with cold spring water is also an excellent plan."

The following remarks relative to the best mode of making butter, are chiefly derived from Dr. Anderson's valuable Essay on that subject. 1. The milk first drawn from a cow is always thinner, and inferior in quality to that afterwards obtained; and this richness increases gradually to the very last drop that can be drawn from the udder. 2. The portion of cream rising first to the surface is richer in quality and greater in quantity, than that which rises in the second equal space of time, and so of the rest, the cream decreasing and growing worse as long as it rises at all. 3. Thick milk produces a smaller proportion of cream than that which is

* Mr. Young has recommended the dairy-man to boil two ounces of nitre in one quart of water, and to bottle the mixture; of which when cold, a large tea cup full is to be added to ten or twelve quarts of milk as soon as it comes from the cow; the quantity of salt petre is to be increased as the turnips become stronger. The feeding of cows with the roots alone will, as the Earl of Egremont found, prevent the milk from having a bad taste. Another method of removing any ill flavor, arising from the cows having eaten turnips, consists in warming the cream, and afterwards pouring it into a vessel of cold water; from which the cream is to be skimmed as it rises to the surface, and thus the unpleasant taste will be left behind in the water.

thinner, though the cream of the former is of a richer quality. If thick milk therefore be diluted with water, it will afford more cream than it would have yielded in its pure state, though its quality will at the same time be inferior. 4. Milk carried about in pails, or other vessels, agitated and partly cooled before it is put into the milk-pans, never throws up such good and plentiful cream as if it had been put into proper vessels immediately after it came from the cow.

From these fundamental facts, the Doctor deduces, in substance, the following rules:

1. The cows should be milked as near the dairy as possible, to prevent the necessity of carrying and cooling the milk before it be put into the dishes; and as cows are much hurt by far driving, it must be a great advantage, in a dairy farm, to have the principal grass fields as near the dairy or homestead as possible. In this point of view, also, the practice of feeding cows in the house rather than turning them out to pasture in the field, must be obviously beneficial.*

2. The practice of putting the milk of all the cows of a large dairy into one vessel, as it is milked, there to remain till the whole milking be finished, before any part is put into the milk-pans, seems to be highly injudicious, not only on account of the loss sustained by the agitation and cooling; but also the more especially, because it prevents the owner of the dairy from distinguishing the good from the bad cow's milk, so as to enlighten his judgment respecting the profit that he may derive from each. Without this precaution, he may have the whole of his dairy produce greatly debased by the milk of one bad cow for years together, without being able to discover it. A better practice, therefore, would be to have the milk drawn from each cow, separately, put into the creaming pans as soon as milked, without being ever mixed with any other; and if these pans were all made of such a size as to be able to contain the whole of one cow's milk, each in a separate pan, the careful *dair* would thus be able to remark, without any trouble, the quantity of milk afforded by each cow every day, as well as the peculiar qualities of the cow's milk. And if the same cow's milk were always to be placed on the same part of the shelf, having the cow's name written beneath, there never could be the smallest difficulty in ascertaining which of the cows it would be for the owner's interest to dispose of, and which he ought to keep and breed from.

3. If it be intended to make butter of a *very fine quality*, it will be advisable, not only to reject entirely the milk of all those cows, which

* Mr. Lawrence, in his "Treatise on Cattle," observes that "it is affirmed by theoretical writers, that to feed cows in the home stall increases their quantity of milk, a fact which various experiments compel me to disprove. With me it has ever had the effect of adding to the substance of the animal, and of diminishing the quantity of her milk; probably from defect of the exercise she was wont to take in collecting her food, and the selection of herbage she was enabled to make." This writer, however, is of opinion, that "the aggregate quantity of milk in a dairy may be enlarged by keeping pastures free from the tread of the cows, since a greater number may be kept, perhaps by one third, on the same extent of ground; at the same time the animals may be secured from the harassing and debilitating effects of the sun and flies."

† A provincial word, denoting the person who has the chief concern in a dairy.

yield cream of a bad quality, but also, in every case, to keep the milk that is first drawn from the cow at each milking, entirely separate from that which is got last; as it is obvious, if this be not done the quality of the butter must be greatly debased, without adding much to its quantity. It is also obvious, that the quality of the butter will be improved in proportion to the smallness of the quantity of the last drawn milk which is used, as it increases in richness to the very last drop that can be drawn from the udder at that time; so that those who wish to be singularly nice, will do well to keep for their best butter a very small proportion of the last drawn milk.

Dr. Anderson proceeds to state in substance that in the Highlands of Scotland the common practice is to let the calf suck till the dairy-maid judges that it has had enough; it is then separated, the legs of the mother having been previously shackled by a very simple contrivance, to oblige her to stand still, and the dairy maid milks off what is left by the calf. In this way, he observes, the Highland butter has been greatly celebrated as the "richest marrowy butter which can any where be met with."—The milk which is first drawn, and consequently of inferior quality, may be converted into an inferior kind of butter, sold sweet, or made into cheeses, which, by being made of sweet milk, if made with care and skill, may be of fine quality.

Churning ought to be regularly continued till the butter comes, or is formed. If the motion in summer be too quick, the butter will, in consequence, ferment, and become ill tasted; and, in winter, it will go back. Churning, it is said, may be made easier by putting the bottom of the pump churn about one foot deep into a vessel of cold water, and continuing it there till the butter is made. The addition of one or two table spoons full of distilled vinegar, after churning a while, will, it is said, produce butter much sooner in many instances than it can be formed without such addition.

Some writers advise to wash the butter after it is formed, thoroughly in several waters till all the milk is removed. Dr. Anderson, however, advises to force the milk out of the cavities of the butter by means of a flat, wooden ladle, furnished with a short handle, at the same time agitating the butter as little as possible, lest it become tough and gluey. "The beating up of butter," he observes, "by the hand is an indelicate practice, particularly if it be constitutionally warm; and as it is hurtful to the quality of the butter to pour cold water on it during this operation, the butter, if too soft to receive the impression of the mould, may be put into small vessels, and there be permitted to float in a trough of cold water beneath the table, without wetting the butter, which will soon become sufficiently firm. Or, when butter is first made, after as much of the milk has been got out as possible, it may be thinly spread on a marble slab, and the remaining moisture be absorbed by patting it with clean dry towels."

It is said in Bordley's Husbandry, that "dashing in water, and then without pause, clearing the butter from every particle of water is widely different from washing butter by kneading and letting it remain at all in the water. Very good butter for flavor, color and consistence, is made by one who washes it twice, but never lets it remain in the water a moment. Another

butter maker says, mix the salt in the butter in the evening, and let it rest till morning, then work out the liquor, but never let it be once touched with water.

Other authors, however, including the writer whose remarks on this subject are republished from the Poultney Gazette in our paper p. 364, say that the butter should be well and repeatedly washed; and the Complete Farmer, an English work of merit, advises, after the churning is completed, to pour water into the churn, and continue to work the churn some time; then to turn out the water and pour in fresh, and repeat the process three times. Then to suffer the butter to remain in the last water some hours to cool and increase its hardness, when the warmth of the weather renders it requisite. Dickson's Agriculture likewise recommends kneading, breaking and pressing new made butter in water, and changing the water till at last it appears scarcely tinged with the milk, which is the only proper criterion by which to determine when the butter has been sufficiently worked.

Dr. Anderson remarks, that a considerable degree of strength as well as dexterity is required in the working of butter. The thing wanted is to force out the milk entirely, with as little tawing [working] of the butter as possible, for if the milk be not entirely taken away, the butter will spoil in a short time; and if it be much worked the butter will become tough and gluey, which greatly debases its quality.

Before you put butter into the vessels which are to contain it, great care must be taken that they be well seasoned by frequent washing and exposure to the air for two or three weeks. As it is difficult to season new firkins, it will always be preferable to employ those which have been used. The most speedy method of seasoning firkins is by the use of unslacked lime, or a large quantity of salt and water well boiled, with which they should be repeatedly scrubbed, and afterwards thrown into cold water, to remain there three or four days till wanted. They should then be scrubbed, as before, and well rinsed with cold water; and before the butter is put in, every part of the inside of the firkin must be well rubbed with salt.

Butter may be salted by working into it one or two ounces of salt, after the butter milk has been forced out. The salt should be thoroughly incorporated, and be of the best and purest quality. Dr. Anderson, however, recommends the following preparation, which he has experienced to be much superior, as it not only prevents the butter from becoming in any degree rancid, but also improves its appearance, and imparts a sweeter and richer taste than could be given by common salt only. For every pound of butter take half an ounce of best common salt, one quarter of an ounce of loaf sugar, and one quarter of an ounce salt petre; beat and blend the whole completely together. Butter thus cured, should stand three or four weeks before it is used, that the salts may be well mixed. The best butter is made in summer, but by adding a certain portion, (which experience alone can determine) of the juice expressed from the pulp of carrots to the cream previously to churning, winter made butter will thus acquire the appearance and flavor of butter that has been churned during the prime part of the summer season.

FOREIGN.

LATEST FROM EUROPE.

Accounts have been received from London to the 16th, Liverpool to the 18th, and Gibraltar to the 14th of May.

By these it seems that the French have rather a *tough row to hoe*, and are likely to get more *kicks than coppers*, to pay for their toils and dangers in Spain. Already *crops of bayonets* have sprung and are springing up in every part of the invaded territory. This *iron harvest* the *workmen* of despotism must reap, or leave their master's *job* unfinished. We think it ten to one, if one in ten of the pioneers of arbitrary power ever meet with any better compensation for their labors than the *wages of sin*. Death will probably be paymaster general of the French forces, before they shall have accomplished as *hirelings* their day; and they will find a short way to their long homes before they have completed the *work* which tyrants have set them to do.

We are told that Moncey, one of the Spanish chiefs, has fallen back and gained a position between the rear of the French and the frontiers to cut off their retreat. This manœuvre has caused apprehension in Paris to become wide awake, and every body is on the look out for misfortune. The funds have fallen, the Parisians are chop-fallen, every thing which relates to national credit and prosperity is sinking, and if the government does not fall into a pit of their own digging, their fortune will be better than their deserts.

The Sun, a London paper of the 10th May, insinuates that the Emperor of Russia is not so much the friend of France as has been supposed, and that the Spaniards have nothing to apprehend from Russian hostility. And we are told in the same paper "that affairs are obviously approaching to a crisis, which must involve Europe in another general war," and that "England will be forced into the conflict sooner than the public generally apprehend." We do not trifle with a subject so serious. In the highest political quarter it is now believed that our neutrality cannot be much longer maintained."

A letter from Madrid, dated April 30, states in substance that Saragossa was yielded to the French in consequence of orders from the Cortes not to defend it. The strongest enthusiasm in favor of Spanish freedom, and the most deadly hostility to France, pervades every part of Spain. It is evident that the French will not advance their cause one step by the occupation of Madrid. It will only be the moment for beginning hostilities.

Gen. Mina, it is said, has had a contest with Marshall Moncey in Catalonia, and much loss had been sustained on both sides.

A London article of May 16, states that alarms had prevailed for some days in the French capital, and did not originate in artificial but very substantial causes. Gen. Mina, by a rapid and apparently skilful movement, has placed himself between the French and their frontiers, and had gained on them more than a day's march at the date of the last accounts. This news caused a panic among the stockholders in Paris, which was in some degree quieted by a tranquilizing communication from the government, but it is predicted that it will not be a long time before the alarm will be again prevalent.

Still later from Spain.—The brig Canton, Capt. Tunison, arrived at this port on Wednesday, and brought news from St. Andero, in Spain, to the 5th of June.—Bodies of Spanish troops, opposed to the Constitution, entered St. Andero on the 27th of April, under Gen. Longa, and of French troops on the 3d of May, under Gen. Dabina. These troops entered and departed from that place several times. On the 20th of May, according to report, a great battle was fought within a few leagues of Catalonia. The two armies, it is said, consisted of about 20,000 men each. The loss of the French is stated to have been 5000 men; that of the constitutional army 3500. On the 22d May the men under Gen. Longa were all taken prisoners, by a party from the garrison of St. Antonio, which also captured a French detachment of 200 men, with from 400 to 500 mules laden with stores and ammunition, and 10,000 dollars in money, intended for the French army, which they supposed were besieging that place.

It is said that Capt. Tunison saw an official account of the battle of the 20th of May, which represented the French to have been completely defeated. The Spanish forces were commanded by Gen. Mina. The greatest enthusiasm prevailed at St. Andero, and in the neighborhood, and even the females volunteered their services in the Constitutional army in defence of their country.

Straw Bonnets.—The Society of Arts (says an English paper) have voted Mr. Cobbett a medal for his communications on the subject of straw bonnets. The public have heard of seed imported from America, and sown here, in order to obtain the straw. Mr. Cobbett has produced straw and plat from grass which grows all over this kingdom, and that plat surpasses even the American plat. In short, he has demonstrated that the people of this country may at once set to work and supplant the Italians in the making of bonnets.

DOMESTIC.

Gold Mine.—A gold mine has been discovered in the County of Anson, (N. C.) two miles from Rocky river. The ore is said to be very pure, and sells in its crude state at 91 cents the pennyweight. A piece has been dug up weighing 40 oz. valued at \$728; and another piece weighing 22 oz. worth \$340, 40 cents.—Gold is found no deeper than three and an half feet below the surface.

Silver Mines.—Late accounts from Washington Co. Missouri, inform (says the Lexington Gazette of the 5th inst.) that a trading party was forming to visit Santa Fee, in Mexico, and also to open a silver mine which was discovered last summer high up the Arkansas river. The quantity and richness of the mineral affords the most flattering prospect of a very extensive manufactory of silver within the limits of the U. States.

Strawberries. The Raleigh Register states that from a garden in the vicinity, there was lately gathered in ten successive days 100 quarts of strawberries.

Extraordinary effects of Lightning.—Mr. Jas. Teague of North Carolina, was struck by lightning on the 5th inst. while walking in his field. His hat was torn into fragments, and some of them propelled on every side to the distance of 30 feet—twenty-five of the fragments were collected. His body was scorched and burnt from head to foot; his left shoe torn into three pieces, one of which was found forty feet from the place where he lay; his shirt was on fire when he was discovered.—The electric fluid in passing from him, entered the ground, making a hole 1 1-2 inch in diameter. By the use of friction and the warm bath for about forty minutes, however, the sufferer revived, and has since gradually recovered.

Thunder Storm.—On the 18th inst. a heavy thunder storm, accompanied by hail, and a violent gust of wind was experienced at Boxford and Bradford, in this State. At Boxford a great number of trees were prostrated, a stone wall blown down, and a barn belonging to Mr. Barnes, demolished. At Bradford, Capt. Joseph Symonds, who was at work in his field, was instantly killed by lightning. On the evening of the same day, the house of Dr. Caleb Fiske, of Scituate, R. I. was struck by lightning. Four persons were sitting in the two lower rooms, at the east end of the house, with the windows open, one of whom, leaning on a window, was considerably injured by the shock.

Bonfire.—Notes of the bank of the Commonwealth of Kentucky, to the amount of one hundred thousand dollars, were consumed by the flames at Frankfort, on the 27th ult. in pursuance of an act of the Legislature.

The Legislature of Rhode Island have laid aside a proposition, respecting Steam Boats, until the decision of the U. S. Supreme Court, on the same subject, is made. They have also rejected a bill for taxing Steam Boat Passengers. A charter has been granted to the Blackstone Canal Company.

Clouds of Flies have made their appearance in Mobile, and are so numerous as to cover whole sides of horses, and impede passengers in their progress through the streets.

PRICES OF COUNTRY PRODUCE, &c.

[Revised and corrected every Friday.]

		FROM	TO
		D. C.	D. C.
ASHES, pot, 1st qual.	ton.	145 00	
pearl do.		155 00	
BEANS, white,	bush	1 10	1 17
BEEF, mess, 200 cwt.	bb.	9 50	9 75
cargo, No 1,		8 50	8 75
" No 2,		7 00	7 25
BUTTER, inspect. 1st qual.	lb.	13	14
" 2d qual.		11	12
small kegs, family,		14	15
CHEESE, new milk		7	8
FLAX		8	9
FLAX SEED	bush	85	90
FLOUR, Baltimore, superfine,	bb.	7 75	7 87
Genesee		7 62	7 87
Rye, best		4 50	4 75
GRAIN, Rye	bush	72	75
Corn		58	60
Barley		68	70
Oats		40	42
HOGS' LARD, 1st sort	lb.	10	11
HOPS, No 1,		10	12
LIME,	cask	1 25	1 37
OIL, Linseed, American	gal.	65	00
PLASTER PARIS	ton.	3 00	3 25
PORK, Navy Mess	bb.	12 00	12 50
Bone Middlings		14 00	14 50
Cargo, No 1,		12 00	12 50
Cargo, No 2,		11 00	11 50
SEEDS, 1herd's Grass	bush	2 00	2 25
Clover	lb.	8	9
WOOL, Merino, full blood, washed		55	62
do do unwashed		46	50
do 3-4 washed		50	55
do 1-2 do		45	47
Native	do	38	40
Pulled, Lamb's, 1st sort		55	60
do Spinning, 1st sort		50	55
PROVISION MARKET.			
BEEF, best pieces	lb.	10	12
PORK, fresh		7	8
VEAL,		6	8
LAMB, per quarter		37	50
POULTRY,		10	12
BUTTER, keg & tub		13	14
lump, best		16	17
EGGS,	doz.	12	14
MEAL, Rye,	bush	75	80
Indian,		75	
POTATOES,		40	45
CIDER, liquor,	bb.	1 50	2 25
HAY, best,	ton.	18 00	22 00

English Cast Steel Grass Scythes, &c.

JUST received and for sale at the AGRICULTURAL ESTABLISHMENT, No. 20, Merchants' Row,

Twenty dozen Cam's superior Cast Steel Scythes—10 do. Passmore's do.

Also—A further supply of Stevens' patent steel spring 2 and 3 tined Hay Forks; together with a great variety of Ploughs, Rakes, Hoes, &c. &c.

Likewise—3 of Stafford's patent cylinder Churns.

June 21.

TREATISE ON AGRICULTURE.

ONE set of BEATSON'S TREATISE ON AGRICULTURE, for sale at the Agricultural Establishment, No. 20, Merchants' Row. June 21.

TERMS OF THE FARMER.

Published every Saturday, at THREE DOLLARS per annum, payable at the end of the year—but those who pay within *sixty days* from the time of subscribing will be entitled to a deduction of FIFTY CENTS.

No paper will be discontinued (unless at the discretion of the Publisher) until arrearages are paid.

Complete files from the commencement of the paper in August can be furnished.

Agents who procure seven subscribers, and become responsible for the payment, will be entitled to a copy gratis, and in the same proportion for a larger number.

THE FRENCH PEASANT.

When things are done, and past recalling,
'Tis folly then to fret and cry,
Prop up a rotten house that's falling,
But when it's down, e'en let it lie.

O, patience, patience, thou'rt a jewel,
And like all jewels hard to find;
'Mongst all the various men you see,
Examine every mother's son,
You'll find they all in this agree,
To make ten troubles out of one.

When passions rage they heap en fuel,
And give their reason to the wind.

Hark, don't you hear the general cry
"Whose troubles ever equal'd mine?"

How readily each stander by

Replies, with captious echo, "mine."
Sure from our clime this discord springs,
Heaven's choicest blessings we abuse,

And every Englishman alive,
Whether duke, lord, esquire or gent,
Claims, as his just prerogative,
Ease, liberty, and discontent.

A Frenchman often starves and sings
With cheerfulness and wooden shoes.

A peasant of the true French breed,
Was driving in a narrow road,
A cart with but one sorry steed,
And fill'd with onions, savory load!
Careless he trudg'd along before,
Singing a gascon roundelay—

Hard by there ran a whimpering brook,
The road ran shelving towards the brim,
The spiteful wind th' advantage took,
The wheel flies up, the onions swim.
The peasant saw his favorite store,
At one rude blast all puff'd away.

How would an English clown have sworn,
To hear them plump, and see them roll,
Have curs'd the hour that he was born,
And for an onion d—d his soul!
Our Frenchman acted quite as well;
He stopp'd, and hardly stopp'd, his song;
First rais'd his bidet from his swoon,
Then stood a little while to view
His onions bobbing up and down;
At last he, shrugging, cried "Parbleu,
Il ni manque ici que de sel,
Pour faire de potage excellent."*

* Nothing is wanting here but salt, to make excellent broth.

A CLERGYMAN'S ADDRESS TO MARRIED PERSONS AT THE ALTAR.

You, who are the husband, must treat your wife with delicacy and tenderness. Nothing in nature is so endearing, so winning, so captivating, as tenderness; nothing creates aversion so soon, so strong, so inveterate, as rudeness, indifference, or disrespect. She is the weaker vessel and depends on you for protection and comfort in all her difficulties. For your sake she has left her friends, her connections and all the world; and should she meet with a tyrant instead of a lover, she may repent of this day as long as she lives. Never incense nor insult her; and as you wish to keep your own temper and peace, ruffle not her's; for crossness and asperity, especially when they settle into moroseness, and ill nature, are the qualities of a savage, not of a christian. Never, on any pretence whatever, squander that in dress, drinking,

or dissipation, which you should lay by for the benefit of your family. By all the laws of God and man, of justice and love, they have an exclusive claim on whatsoever you can earn, and every unnecessary indulgence which you take apart from them, is at their expense and injury. Consult your wife, especially in all cases of difficulty; 'tis her interest as well as duty to give you the best advice she can. Never keep her ignorant of your circumstances; this has been the undoing of millions of families. The wife who deserves the name, will not fail to economise, when she knows that her partner's circumstances require it. Be not much uneasy though the world should sometimes think she has her full share of influence. Women of good sense seldom abuse their husband's confidence. And you will see few happy families in which the wife is either a slave or a cypher.

Mutual happiness is your mutual object; yield therefore to one another. *Be ye equally yoked*, is the command of God; but neither seek basely to throw an undue weight on the other's shoulders. Suffer no interference from any quarter to interrupt your harmony; you are connected for life,—Nothing can separate your lot in this world; O let nothing divide your affections; regard each other with the fullest confidence; the least spark of suspicion from either, must forever blast the comfort of both.—There can be no harmony where there is no faith.

A wife should not only love her husband, but on every occasion shew him all the attention in her power. Study by every means to make his home comfortable, and inviting. *Where the treasure is, there will the heart be also*, and a man's presence, as well as his heart, will always be there most, where he has most pleasure. And I will venture to assert it as a fact incontestible, that he who finds his home a paradise, will seldom stroll into the wilderness of the world.—While on the other hand, a scolding wife and a hot house have driven many a wretched husband to a tavern, where cards, women, and wine, have sealed his own and the destruction of his family.

NOBILITY—NOMINAL AND REAL.

There is a story running through the papers, that Matthews, the famous stage player and mimic, being in company with his "majesty of England," when regent, the latter offered his box, requesting that the player would oblige him (the regent) by taking a pinch of snuff.—On which the other desired that the regent would open his royal jaws a little wider, and say oblige.

The Boston Patriot, noticing this tale, put afloat to honor the player, asks us to "figure George Washington laughing and holding his sides at the mimicry of Charles Matthews, and standing before him to have his pronunciation corrected, in the manner stated." The idea is intolerable. The eye of Washington, in a case like this, would have sunk the impertinent as through the floor, and all his pranks and gibes and jeers would have been lost in reverence, had he stood in the presence of that noble man of nature, and perhaps no man that ever lived had a countenance more strongly marked with what is called "dignity," than the father of our country. He was sedate and steady, yet not austere—but never losing sight of self-respect,

he exacted it of others, without being sensible that he required it; and it is hard to suppose that any person, with the least pretension to character or standing in society, should have spoken to him as Mr. Matthews is said to have done to the ruler of kingdoms.

A notice of the manner and appearance of Washington, brings to recollection an incident that I myself witnessed, and which, because it relates to him, may be worth mentioning. The gentleman with whom I served my apprenticeship, in Philadelphia, kept a Bookstore, as well as a Printing Office, at his house in Market St. He would not have more than two or three lads in the office, and liberally allowed us free access to the store for the use of his books. As I had a regular weekly task that I always performed, it was my practice to rise early in the summer and seat myself at the front door, where I enjoyed the fresh air, and read generally about an hour before the rest of the family were stirring, and when but few persons were to be seen in the streets. While thus occupied, Washington often passed me in his morning walk, and from repeatedly seeing me at the same place, and in the same employment, frequently seemed to give me an encouraging look, if our eyes happened to meet; to which he would sometimes add a kind nod of recognition. One fine morning, just before the door I was sitting at, he was met by two apparently respectable gentlemen, whom, at the first glance, I put down for foreigners, just arrived in Philadelphia.—They stared at him with remarkable eagerness, making a full halt to examine him, spontaneously, as it seemed to me, raising their hats. The general made a slight bow, as he passed they then rushed eagerly up to me, and asked "what gentleman is that?" I simply replied "Washington." One of them then said, "By —, it is the most majestic man that ever I beheld;" and they both rushed through the market house, retracing their steps, that they might meet and look at him again. By their dress manners and dialect, I thought that they were recently from London.—*Niles' Register.*

FIRST BOOK AUCTION.

The first book auction in England, of which we have any record, is of a date as far back as 1676, when the library of Doct. Seaman was brought to the hammer. Prefixed to the catalogue, there is an address, which thus commences: "Reader, it hath not been usual here in England, to make sale of books by way of auction, or who will give most for them; but it having been practised in other countries, to the advantage of both buyers and sellers, it was therefore conceived (for the encouragement of learning,) to publish the sale of these books in this manner of way."

The celebrated doctor Saunderson, the blind mathematical professor of Cambridge, being in a very large company, observed, without any hesitation or inquiry, that a lady who had just left the room, and whom he did not know, had very fine teeth. As this was really the case he was questioned as to the means he employed in making such a discovery. "I have no reason to think the lady a fool, said the doctor and I have given the only reason she could have, for keeping herself in a continual laugh for an hour together."

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No. 49.

From the Massachusetts Agricultural Repository.

DR. T. W. HARRIS, OF MILTON, UPON THE NATURAL HISTORY OF THE SALT-MARSH CATERPILLAR.

In the present state of agriculture, hay has become an important product to the farmer in this vicinity. From the high price and the increased demand for the imported and cultivated grasses, the indigenous and natural growth of the soil must rise in value; and of this perhaps none is more valuable, on the seaboard, than that of the salt-meadows.

But various causes have contributed to disappoint our hopes in the crop of salt-hay, and among those, the most apparently unavoidable are the ravages of insects. Of these, the caterpillars and grasshoppers have become the most formidable, by the great extent and the annual increase of their devastations. Meadows, where they have foraged, are entirely stripped of their covering; every green blade disappears before them;—what the caterpillars have left being devoured by the grasshoppers.

The object of this paper is to attempt to elucidate the natural history of the former of these insects, with the hope that it may lead to some sure method of exterminating them, or of limiting their ravages to a shorter period.

Caterpillars were observed, upon the salt-marshes, bordering Charles' river, near Cambridge, some ten or twelve years ago; since which time they have gradually multiplied and extended over the contiguous marshes. They were once by a high tide and strong wind driven upon Boston-neck, near to Roxbury line, where they laid in "winrows," apparently dead; but after the storm had abated they were resuscitated by the heat of the sun, and commenced their depredations anew, overrunning gardens in that vicinity and destroying every green leaf in their path. Thence, I presume, they migrated to the eastern side of the neck, and have followed the meadows as far as Quincy. To what distance they have spread on the north of Charles' river, I have yet to learn. They are also found on the marshes in Kingston; but probably originated from a different source from those in the environs of Boston.

The salt-marsh caterpillars are produced from eggs, laid by moths in the middle of June, which are hatched in the air, in seven or eight days afterwards. These eggs are nearly round, less than a grain of mustard, and about eight hundred in number from one female. The caterpillars are small and feeble at first, eating only the most tender part of the blade of grass; but rapidly increase in growth, and, in seven weeks or fifty days,* attain their full size, having repeatedly cast their skins. Individuals, at this period average one and three quarters of an inch in length. While growing they change the colour of their hair very remarkably;—being nearly of a mouse colour when small, and of a brownish hue when fully grown. Of these,

at maturity, there are two shades; some being of a dun colour, and others much darker.

The body of all true caterpillars is divided into twelve segments besides the head.

Each segment, in this insect, is covered with twelve yellowish tubercles, arranged, rather irregularly, six upon each side: from these proceed the hairs, giving the predominant colour. The tubercles appear to be analogous in function to the bulbs of the hair in the human subject: they are, in truth, but common bulbs, from which tufts of hairs grow and are nourished, in the same way as each single hair grows and is nourished from its appropriate bulb. Between the third and fourth tubercle, on each side of the median* line, is a stigma or spiracle, of which there are eighteen, or two in every segment of the body, except the second, third, and last. The spiracles are the organs of respiration, and are the same, in number, in all the true caterpillars.

The colour of the body, divested of the hair, is yellow, shaded at the sides with black; and there is a blackish line extending along the top of the back. The spiracles are white and very distinct.

The hair proceeding from the three uppermost tubercles, on each side of a segment is almost black, as well as that from all the four first segments of the body. That from the tubercles at the sides is of a much lighter shade. On the two last segments of the body the hair is much longer than the rest.

This caterpillar, like most others, has eight eyes, four upon each side of the head. These are not to be distinguished without the aid of a microscope. They are situated just above those white feelers, so plainly seen attached to the upper lip. The eyes are here arranged in a semicircle, whose convex side is directed anteriorly.

The jaws are two, strong and corneous, and their operation, in eating, may be distinctly heard as well as seen.

It has sixteen feet;—six anterior and horny, and ten posterior and fleshy. These enable it to run with considerable celerity, as we may see, when the insect is at its full size; at which period it commences the wandering state, and leaves the meadows in search of a place of security for forming its cocoon.

These caterpillars are endued with a great degree of vitality; for long immersion in water does not destroy life. Being often exposed to that element, they seem provided with the power of enduring its approaches. They feed twice in the day; about ten o'clock in the morning, and four in the afternoon. If overtaken by the tide while feeding, they mount to the top of the grass; and then, if obliged to relinquish their hold, contracting themselves into a circular form, they commit themselves to the water. On this they float and are carried to the superi-

* I have taken the liberty to employ this phrase, which is a technical one in Anatomy and Physiology, for that line which divides the animal into two equal and symmetrical halves, and I would indicate by it a dark line running upon the top of the back, the whole length of the body of this insect.

or parts or borders of the marsh. There they are left, with the wash of the sea, in heaps, but alive, and in a short time ready to recommence their depredations upon the meadows. But when not engaged in feeding they conceal themselves at the roots of the grass, where they are equally secure from the effects of the water, even though covered by it. In this way also they pass the night. The hair, upon their bodies, appears to possess a repelling power, which secures the spiracles from the admission or access of the water; for, were this to be the case, the insect would be drowned. We should suppose that the tide, on receding, would sweep away many of these insects; but this is not the case: for in consequence of the irregularity of our shores, and of the power, which these caterpillars have of remaining, uninjured, on the surface of the water, for a long time, they generally gain some place of lodgment and safety.

Their most favourite food is the 'Onion grass,' which is very succulent; * but they are not fastidious, and eat with avidity 'Fox' and 'Bottom-grass,' and even 'Thatch' and 'Sedge.' Of the 'Black-grass'† they are not so fond, probably because it ripens sooner than the others, and is found nearer the upland, and thus, before it is reached, it becomes too dry to furnish the juices by which they are nourished.

By the first of August, generally, these insects have attained their greatest size. They now become very voracious, and continue eating all the day and night, without intermission. Soon they leave the meadows, aggregated in great numbers, and commence the wandering state, or 'begin to run,' as is the phrase, devouring every thing in their progress. Corn fields, gardens, and even the coarse and rank produce of roadsides afford them temporary nourishment, until they have found a place of security from tide and weather, and concealment from their enemies of the animal creation. A stone-wall, a wood-pile, fencing-stuff, and even lay-mows and stacks are the resorts of these caterpillars, where they intend to take up their winter quarters, and construct their cocoons. I have heard of their being dug up, in vast quantities, from the ground upon the edge of a salt-marsh; but, in this instance, it is probable that, being prevented by ditches in their attempts to escape from the marshes, they were prompted by instinct to take refuge deep in the bank.

The cocoons are formed of silk interwoven with the hairs of their bodies, and lined with a silky lamina of a dense texture. These cocoons retain the colours peculiar to the caterpillar; those being brown, which are fabricated by the dark larva, and the others much lighter coloured. If we examine the recent cocoon, we shall find the caterpillar within it entirely destitute of hair, and much contracted. In a few days it casts its slough, and becomes a chrysalis, of a dark brown colour, and about three quarters of an inch long. In this state it passes the win-

* It is so full of juice as to be with difficulty dried.

† *Triglochin maritimum*, L. sometimes called the sea arrow grass. This is considered by Mr. Lowell as the most valuable species.

* They continue in the feeding state about as long as the apple-tree caterpillar, which is produced by the *Phalena Neustria* of Linne.

ter, and, within the first and twentieth of June, the moth emerges from its chrysalis and cocoon, and flies towards the meadows; where, after the hymeneal rites are celebrated, and the eggs deposited, it dies.

The moth is the perfect state of the insect.—There are two varieties, as to colour, corresponding with the caterpillars from which they are produced. From the dark caterpillar and brown cocoon proceeds a moth with ash-coloured wings; and, from the lighter coloured larva and cocoon, is disclosed a moth whose upper wings are white, as are also the under wings in some individuals. These colours do not designate the difference of sex: for though the upper wings of the male are invariably white, those of the female are not as invariably ash-coloured; but this difference or variety of the female will be more distinctly described below. I would also mention that the male, and the light-coloured variety of the female, both proceed from caterpillars and cocoons of the same colour.

The male moth will be first described.

Head and throat white; eyes black; antennæ black, and doubly pectinated. Body orange-coloured, with six black spots on the top of each ring, and a white line between a double row of black spots on each side;* beneath the abdomen is a single series of four or five small spots: tail white. Upper wings white above, orange coloured beneath, spotted with black upon both surfaces: under wings both above and beneath orange-coloured, with a few large black spots. Thighs orange coloured; legs and feet white, spotted or banded with black.

Female—Head, thorax, tail, both surfaces of the upper and under wings, under part of the abdomen, and the thighs entirely ash-coloured. The wings are spotted with black. Upper part of the abdomen as in the male. Antennæ doubly (but slightly) serrated, not pectinated.

Variety of the female—Head, thorax, and tail, white. Upper part of the body as in the male. Upper and under wings white upon both surfaces, and spotted with black. This variety very much resembles the male, when the wings are closed, for then the under wings are not to be seen. It is however easily distinguished from the male by its antennæ which are serrated: and when we examine the under wings, and the inferior surfaces of the upper wings, and body, we find them to be destitute of the yellow or orange-colour, peculiar to those parts of the male.

I would only add to this description, that the moths, of both sexes, are furnished with a short tongue, separable into two filaments; and have also two scaly palpi, above the mouth.

This insect is closely allied to several others, very common in Europe, and some of which are also found here; such as *Bombyx erminea*,† &c. These form one family, and are arranged under the genus *Arctia* of Latreille, and Leach. This genus contains those moths, which have two scaly feelers; pectinated or ciliated antennæ; a short membranaceous tongue, composed of two separate filaments; and trigonate, deflexed wings; the caterpillar having sixteen feet.

Professor Peck, to whom this moth was shewn, considered it as a nondescript; and proposed to call it *pseud-erminea*, bastard ermine, from its af-

finity to the above mentioned *Bombyx erminea*.* I would therefore define the subject of this memoir.

Arctia (*pseud-erminea*) *alis masculis anticis albis; posticis fulvis, utrisque nigro punctatis: tergo fulvo, sex maculis nigris supra notato; ventro quinquefarie nigro punctato. Fœmina variat alarum colore.*

Larvæ gregatæ; verrucis luteis piliferis.

Pupa folliculata.

Interdum maculam septimam super postrema corporis parte videmus. Fœmina alis (anticis posticisque concoloribus) albis vel cinereis, nigro punctatis.

There are two facts, in the history of these caterpillars, that should be ascertained. First—the place where the eggs are deposited; this I have not as yet been able to discover; those eggs, which I obtained, were laid under glass vessels upon paper. Probably they would be found around the culm of the grass, or regularly arranged upon the leaf. Secondly—whether, by bringing home, with the hay to our barns, the caterpillars when fully grown, we are not liable to introduce them eventually into our uplands, where they might become as it were naturalized; and thereby increase the evils we already suffer from their devastations. This we have some reason to fear; since we know that the caterpillar at one period, (and that sometimes for several days,) feeds indifferently upon all green herbage. Some observations, made upon doubtful specimens of the larva and perfect insect, found occasionally on the uplands, favour this opinion. The peculiarities in the appearances of these specimens may possibly have arisen from a want of the food most natural to the caterpillar. Still both these points are as yet merely matters of conjecture; further examination must establish or refute them.

From observation and experience I would recommend the following plan, by which we may lessen the evils that we suffer from this enemy.

First, to cut the grass early in July; and secondly, to burn over the marshes in March. In defence of early mowing, it may be said,—that it is the only way by which we may save the crop from those meadows where the caterpillars have multiplied to any extent. The preceding history furnishes the data, from which to calculate the best time for affecting this purpose.

We have seen that the caterpillar is hatched about the twentieth of June, and that its ravages are continued seven weeks. If then the meadows, in one vicinity, are mowed about the fourth of July, the caterpillars, being small and feeble, will be deprived of their means of nourishment, and being unable to wander far, will die, before the crop is gathered into the barns. By the process of making the hay, most of the succulent juices are evaporated, and the grass becomes so dry and hard as to resist the efforts of these little devourers. Thus we see that the Black-grass, by ripening early, is rejected by them, and the crop is saved.

By the practice of late mowing, where the caterpillars prevail, the crop is diminished, immense numbers of caterpillars and grasshoppers

are left to be dispersed upon the uplands, to multiply and increase the existing evil; or are brought in to perish in our barns and stacks, where they communicate a most unpleasant flavour to the hay, rendering it unpalatable to our stock, and occasioning a waste of fodder.

Many beneficial effects result from burning over the marshes in March. This has been long practised in the British province of New-Brunswick, and is getting into use in this vicinity, to the manifest improvement of the crops. By it the stubble or “old fog” is consumed, which becomes more necessary from early mowing, in the preceding year. By this means also we may destroy innumerable eggs and larvæ of grasshoppers concealed in the grass* the past autumn, and which, if matured, would produce a host more formidable than that of the caterpillars themselves. The roots of the grass are not injured by burning the stubble; they are fertilized by the ashes, and in a short time afterwards we shall be gratified by seeing the grass springing from the blackened surface with increased strength and fresher verdure.

The preceding observations on the history of these insects, are the result of the inquiries, investigations, and experience of the writer for several years; and the practice here recommended is one that was first suggested by necessity, and whose good effects have been reaped by many.

This little memoir is offered to members of the Massachusetts Agricultural Society, with the humble hope that they may derive some profit from what has been a pastime to the author.

Milton, 1822.

T. W. H.

* De Geer.

From the Mass. Agricultural Repository.

PASTEL, OR WOAD, AND ITS CULTURE.

We insert with great pleasure, the following communications on the culture of Woad, (*Isatis Tinctoria*.) and General Dearborn will permit us to express our sense of the obligation which the public are under to him, for his continued efforts to introduce the cultivation of this plant, now so important to our manufactures. During the late war, General Dearborn made some interesting experiments on a small scale, to prove the practicability of raising this important dye-stuff in the United States. Though his experiments were not extensive, they were entirely satisfactory. He did more. He compiled and wrote, and published at his own expense, a treatise on the culture of this plant, which contains all the information necessary for a cultivator of it. The peace came; with it, low prices; and the subject lost a portion of its interest. But great changes have been wrought during the last seven years, and the culture of woad has again become a subject of deep interest. The fact, that an extensive manufacturer, like Mr. Crowninshield, has found it for his interest to cultivate this plant, and has proved its value practically, seems to set the question at rest. We invite our cultivators generally, to read with attention these communications, to procure Mr. Dearborn's work on Woad, and to make some moderate experiments upon this article.

Mr. Dearborn's letter to Mr. Lowell, April 9, 1823.

Dear Sir—I inclose a letter from Richard Crowninshield, Esq. on the cultivation of woad, which, if you think proper, please to cause to

* The upper consisting of six, in number and size corresponding with those on the back, and the lower of 4 or 5 spots, which are smaller than the former.

† *Arctia lubricipeda*. Leach. *Arctia Menthastri*?

* *Bombyx* (*Menthastri*) *alis deflexis albis nigro subpunctatis; abdominis dorso fulvo, nigro punctato; feribus anticis luteis.*

Abdomen albim, quinquefarie nigro punctulatum; dorsoque fulvo. Antennæ subtus nigrae.

Fabr. Entomolog. Systematica.

be inserted in the Agricultural Journal. It is the largest experiment that has been made in his section of the country. It shows that our manufacturers can raise this valuable article for the dyeing vat, at little expense, and with great ease.

With great respect, your most humble servant,
H. A. S. DEARBORN.

Extract of a letter from Richard Crowninshield, Esq. of Danvers, to Brigadier Gen. Dearborn, dated March 29, 1823.

"I planted about 5 acres with 9 bushels of woad seed, in 1822, some of which seed you was so obliging as to present to me. The remainder was procured from Connecticut, New-York, and some were of my own raising in 1821, from seeds received from Dr. Nichols, in 1818. There was no difference in the plants raised from these several parcels of seeds. The soil was light, dry and sandy. The land was broken up in the spring of the same year. The sods were removed, and the land crop ploughed, harrowed, and furrowed out 2½ feet between the furrows. About 40 cords of good compost manure, (consisting of horse dung, cow dung, and pig manure, mixed with about one fourth part of its bulk of bog turf, which had been in heaps about two years, with some ashes, lime, &c.) were spread on the land and ploughed in as for Indian corn; the furrows were slightly earthed. The quantity of seed two bushels to the acre. They were sown rather thickly in the furrows, in order that in gathering them, here might be a full handful of plants to crop at the same time. The seed was lightly covered. It was all sown before the 20th of May. It grew well, but required five or six men to keep down the weeds in July. It was all picked or twisted off quite to the ground. It was then again cleared of weeds, and in 14 days the new leaves were from 9 to 14 inches long in rich spots. The second crop was gathered from the 15th to the 20th of August, and produced about four tons of green leaves, about one ton less than the first crop. The dry weather prevented a third crop from being taken. Some leaves were however taken in October, 5 inches long, but I preferred to let them generally remain to protect the plant against the frost, *having the last winter lost* an acre of woad, and an acre of teazels, by frost. The loss in woad was much less than in the teazels; the plants which I lost of the latter would have sufficed for four acres, and have produced much money, being worth from 50 to 75 cents for every hundred plants. All the woad plants are now alive, (that is, on the 29th March, 1823,) and have grown half an inch. I have also many thousands of teazel plants in good order.

"The expense of cultivating woad is about equal to that of cultivating onions, and ten men will crop an acre in a day.

"There is something remarkable in the woad plant. Some roots which produced seeds last year, sprouted again from every joint like cabbage sprouts. They are now again sprouting from under the snow, the leaves are green, and may again be cropped this spring. *I shall have a great quantity of seed* to dispose of at \$1.50 per bushel. I paid two dollars. There are but few men in America who understand, *perfectly*, the preparation of woad for the dyer. Our farmers, should it become the policy of the nation to

raise and manufacture our own woollen goods, equal to the national consumption, will probably find it for their interest to raise woad, and deliver it green or dry (as may be most convenient for them) at regularly established mills, exclusively devoted, as in England, to this article. Inclosed you have an article from the N. York Statesman on woad."

The article referred to from New York, is interesting, and is, therefore, here inserted.

N. B. General Dearborn has still a few copies of his work at the command of persons disposed to cultivate the woad.

AMERICAN MANUFACTURES.

Extract of a letter from Cincinnati, Ohio, to the editors of the Statesman.

"Having seen several communications in your valuable paper, respecting the *art of dyeing*, and the cultivation of the *woad plant*, by which it seems that manufacturers in your part of the country are doubtful whether woad can be produced in the United States in the same perfection as in England, I have thought proper to state, for their information, that in 1821 I planted two acres, and found the produce to be at least one fourth more in quantity, having cut *seven crops* during the season. In England, I never knew more than *five*. Its strength, as a mordant, exceeded the English at least one third, containing three times the coloring matter I have ever found in any woad, after an experience of forty years, in an extensive trade in England.

I herewith forward to you some patterns of wool, dyed with this woad, and regret I had not preserved some colored with woad only, by which artists acquainted with the subject would know its superior qualities. I have always observed in England, that our woad plant produces more in quantity and better in quality, in a warm season; and I attribute its great perfection here to the same cause.

Your manufacturers of woollens cannot fully succeed until they become well acquainted with this useful plant, as no good blue, black, green, or purple color can be produced without it.—All other modes are imperfect, expensive, and mischievous. Having made this country my home, I shall take pleasure in communicating this knowledge, to any one that may need it, for a moderate compensation. *Written directions* may be given for growing and preparing woad, without any chance of error; *but to use it properly*, requires considerable attention and good instructions.

I suppose it may be produced for three or four cents per pound—perhaps for something less. I have sold some of mine at Baltimore, this season, for 12½ cents, by which you will perceive there is great profit in its cultivation. In my opinion no substitute for woad will be found worthy of attention, although it seems your friend *Hopson* thinks he has discovered one, which will answer the purposes both of woad and indigo. Your correspondent will confer a favor on me, by giving a description of the wild indigo plant, as he terms it. I will investigate its properties, and communicate the result to him.

Your correspondent who has written on the *scarlet dye*, appears to be acquainted with only a part of the theory of that art, as two essential ingredients are not mentioned, one of which I

have seen since my arrival in this country.—Your friend is also in an error in supposing he can render color more brilliant by using steam. I have made use of steam in dyeing for nearly thirty years, and am well acquainted with its advantages and disadvantages. It is a cheap and expeditious mode; but it cannot be used for fine colors, such as Saxon blue, green, pink, crimson, scarlet, orange, yellow, and all other delicate colors, *but at the expense of its beauty*.

All dyers should know, that when bright colors are wanted, the first step to be taken is to clear the water of all mineral and animal substances. This is all that is necessary to prepare the liquor for any bright color; but if raw water be added, or steam suffered to flow into the vessel, the beauty of the color will be destroyed, in proportion to the quantity admitted."

The letter, from which the foregoing is an extract, adds a number of other particulars connected with the subject of manufactures. It states, among other things, that large quantities of Fuller's Earth are said to be found on the banks of the Wabash; but after diligent search, none, in a pure state, has yet been discovered in the vicinity of Cincinnati. Our correspondent has put to us the following questions, to which we hope some one will furnish satisfactory answers, as we are unable to do it ourselves:

1. What quantity of woad would be consumed annually, in the vicinity of New York and Philadelphia, estimating one pound of woad to five pounds of wool, dyed of a dark blue?

2. Would the manufacturers give a reasonable compensation to be instructed in the art of dyeing generally?

3. Whether it would answer any good purpose, for a person who understands the manufacture of woad and its various applications in the art of dyeing, to establish himself in this part of the country?

It is proper to remark, that we are wholly unacquainted with the writer of this letter; nor have we a sufficient knowledge of some of the topics embraced in his communication, to judge of the accuracy of his remarks. *Hopson* will be able to speak for himself, where his correctness is questioned.

The beautiful specimens of coloring, accompanying the letter, may be seen at this office, where the name and address of the gentleman who forwarded them may be obtained.

To the Editor of the American Farmer.

Fort Osage, (Missouri.) April 2, 1823.

"I am, at this moment, experimenting in my nursery. I have grafted apples on sycamore and cotton tree stalks, close to the roots. I am told that the most flourishing and surest orchards of apples in the west, are growing on sycamore roots. I am trying peaches on the wild plum, and shall, by recommendation of one of my neighbors, graft some peaches on stocks of the common black walnut. This neighbor of mine assures me, that he has seen a very *old* and flourishing peach tree growing on a walnut—it is easy to try it; and should it succeed, perhaps we may be able to obtain durable peach trees—at least, we shall escape the annoyance of the worm. I am determined to try all manner of ways to procure a good permanent peach orchard. The result of such of my experiments as prove successful, shall be made known to you in due time."

From the Baltimore Morning Chronicle.

TO THE PUBLIC.

As the season of the year is approaching, when persons owning horses become alarmed, in consequence of these animals passing off bots with their feces, I have thought proper to endeavor to remove such fears, by laying before the public some facts which I have noticed in the course of twenty-four years experience.

Bots are generally found adhering to that portion of the horse's stomach, which is lined with a continuation of the oesophagus membrane, to about one third or little more of its extent; sometimes they are found attached in great numbers to the pylorus, or the posterior opening of the stomach. The time that horses begin to pass them off, is generally in June, and so on through September to October. The bot remains in a chrysalis state for an uncertain, but short time, and then assumes the same character as the parent fly. To prove, without the possibility of doubt, that the bot is produced from the fly which deposits its ova on the hair of the horse, I took twelve bots that came from twelve horses; these I put into separate vials, and with paper wrapped round a quill barrel, I made stoppers to give ventilation, and noted on each vial the day that each bot came from the horse; this was convincing as to the uncertain time of the chrysalis; for some produced the fly in twenty-one days, others in forty-nine days, and others in the intermediate time. The flies thus produced were the same as those that deposit their eggs so plentifully on different parts of the horse. What it may be that causes this difference of time in the chrysalis admits of speculation. It is proper to notice, that a bot taken from the stomach of a dead horse, cannot produce the fly, as in this stage of its progress through the canal, it is not sufficiently matured.

There is no worm that we know of, in the intestines of the human subject, which makes such an annual rotation; and in consequence of their long continuance in the intestines, we find numbers of the human family destroyed by them. Whereas, it may be presumed there would be few or none killed by worms were their rotation annual. And as bots perform this annual course, it can be no cause of surprise that they are not so destructive as they are commonly supposed to be. Was it a fact that they were thus destructive, we should find very few colts raised to the age of four years, for colts generally run out until they are considered ready for work, and are fully exposed thro' the summer to the action of the fly.

If a horse, by symptoms, expresses much pain, it is said to be the bots; and so much does this opinion prevail, that people imagine bots kill more horses than any other disease. If we reverse this opinion, we shall perhaps come nearer to the fact, for in all probability there is no disease that destroys so few. When he is said to be sick with bots, it is generally *spasm* or *inflammation* of the intestines. That bots never kill I will not assert, though there are eminent veterinarians in England who say they never do.

It is a common opinion, that a few bots are essential to the health of the horse. This erroneous idea arises from people opening but few after death, and those few being found to have bots in them. But in the many hundreds

that I have opened, there have been some in which not a bot was seen; and not one of these may be supposed to have died for the want of bots. The motive I have in making this communication is to remove the fears that prevail with some persons, when they see bots coming from the horse, as if they were so numerous as to kill him immediately. But for the information of such persons as would rather give something to facilitate their discharge, when they see a few coming away, I would advise one ounce of powdered safin, to be given in the horse's feed, once a day for three days. At the season above mentioned, I have recommended this medicine to such persons as I could not persuade to be satisfied with the course of nature; and they were very much astonished at the quantity of bots, brought off by it.

JOHN HASLAM, Veterinary Surgeon.
Baltimore, April 13th, 1823.

From the American Farmer.

Pittsfield, 6th June, 1823.

DEAR SIR—I have noticed an article in your No. 5, vol. 5, of "*a New Jersey Subscriber*," on the subject of Ruta Baga, in which he expresses his doubts, if it be a profitable crop, and gives his reasons.

Equally desirous with your correspondent of eliciting practical knowledge, I am induced to state, that five years experience, satisfies me that it may be raised to advantage, *wherever the climate is adapted to its culture*:—because,

1st. To raise a good crop it is necessary to put the land in a good state of tilth.

2d. The requisite care of the crop, while it extirpates weeds, prepares the soil in the best possible manner, for stocking to grass with the succeeding crop of grain.

3d. All kinds of live stock are fond of it.

And 4th. It affords a most succulent food, at a time (the spring,) when most wanted for every kind of stock.

Having remarked the advantages arising from the turnip culture in Europe, I was induced soon after entering on Agricultural pursuits, to give it a fair experiment, notwithstanding the general opinion in this section of the country, that turnips *could not be raised*, except on *newly cleared and burnt land*; consequently, they were only cultivated in a partial manner, and merely for culinary purposes.

In 1817, I selected for the purpose an acre in a field, that might be termed *worn out land*; that is to say it would produce a half ton of hay to the acre. The soil, a dry gravelly loam—gave it three ploughings and two harrowings before drilling—on the 24th June, manured with twenty-six loads of barn yard and hog's manure, and sowed the common English turnip—gave it a top dressing of about fifteen bushels slacked lime, and fifteen bushels leached ashes. It produced eight hundred and sixty-three bushels, and received the premium of the Massachusetts Agricultural Society. Very many of the turnips weighed from ten to twelve pounds; generally from six to eight pounds.

Having raised at the same time a small quantity of Ruta Baga, from seed procured direct from Russia, I was enabled to make a comparison of the relative value of the two kinds, and hence am satisfied, that with us at least (on account of our long winters and late springs) the Ruta Baga is preferable to the common turnip,

because the latter can only be used to advantage for fall feed, whereas the former will keep good through spring—and at this time I have them in perfection. It is true, an acre will not produce so many bushels of the Ruta Baga, as of the common kind of turnip, but that, I consider, as fully compensated, by the greater quantity of nutritive matter they contain.

Since 1818, I have raised the Ruta Baga every year, and may safely state, that, in no year has the crop been less than five hundred bushels per acre, and entirely free from worms.

Notwithstanding this favorable result, it is with much regret, I am obliged to add, that I am, as yet, almost alone in this county, in the cultivation of turnips as food for live stock, although our soil and climate are peculiarly adapted to them. AGRICOLA.

☞ The climate of New England is so much moister than that of the southern states, that we apprehend both potatoes and turnips may well succeed there, in seasons when they would fail even with us in Maryland. The suggestions above, are valuable and conclusive—however, as to New England, at least—and yet we see that even there, this great resource for winter feeding of stock is neglected. What immense advantages have resulted from the turnip culture to England. We regret that the communication from Agricola was not sooner received, but any thing from his pen will be at all times highly acceptable.—*Ed. Amer. Farmer.*

From the American Farmer.

WOOL.

In compliance with the request of one of your correspondents, I state, that I have just finished shearing a flock of 525 of mixed merino sheep, from which I have obtained, 2368 1-2 pounds of wool, free from tags, giving an average of a little more than 4 1-2 pounds. My average is not as great as it has been in former years, in consequence, (I presume,) of my flock's containing at this time, a larger proportion of breeding ewes than usual. I have always been in the habit of preparing my wool for market, by laying each fleece, as it is taken from the sheep, on a table, taking off all around, about two or three inches of the coarsest wool, which is reserved for domestic purposes, and rolling the remainder up very nicely and firmly, with the inside of the fleece turned out. The whole is then packed away in coarse bags; and a waggon, will at a single load take a thousand dollars worth of it to market. My wool, thus prepared, has been readily sold, for the last four years, at 40 cents per pound, in Alexandria; and I am very much inclined to think would bring a great deal more in the northern markets. But from some cause or other, we find it very difficult to ascertain the market price of wool in other places. I last year, made an inquiry through your paper, on this subject which was never answered. The growers of wool would certainly find it to their interest, to communicate freely with each other on this subject. And wool is now becoming too important an article, not to be entitled to some little attention, in a paper, devoted like yours, to the agricultural interest of the nation.

I have been told that during the last summer 70,000 lbs. of wool were imported from Europe into Boston alone, and sold, at public auction, at from 75 to 125 cts. per lb. Is this the fact? And if so, what was its quality and condition?

will not some northern wool grower reply to these inquiries; and tell us also the usual price of American wool in the northern markets? In Ohio I have been told it readily commands from 75 to 100 cents.

I am no friend to any unnecessary commercial restrictions; but if Congress have thought proper to give encouragement to our manufactures, is there any consideration either of justice or state policy, which should withhold a similar encouragement from the raw material, of which the manufacture is made? F.

The Editor expects, with confidence, that the above article will attract the notice, and be covered with an answer from several of his patrons in Connecticut and Massachusetts. How do gentlemen expect answers when they want information on some points, unless they communicate it when it is asked on other subjects, within their knowledge and experience?

Ed. Amer. Farmer.

NEW ENGLAND FARMER.

SATURDAY, JULY 5, 1823.

Farmer's and Gardener's Remembrancer.

JULY.

HORSE RAKE.—In our observations, (p. 373) on the subject of hay-making, we forgot to mention a machine for raking hay, which seems very well adapted to the purpose of saving manual labor. The following remarks and description of the machine we allude to were first published in the Pittsfield (Mass.) Sun, and re-published in the second volume of "Memoirs of the Board of Agriculture of the State of New York."

"The present period of low prices of products, and the necessity of economy, renders it expedient to inquire whether the labor of conducting our farms may not be abridged by the introduction of what are called labor saving machines. My attention has been called to the consideration of the subject. In one instance, viz. that of gathering hay after it is made, I am confident the labor and expense may be greatly abridged. In one or two sections of our country, the *Horse Rake* has been introduced and used most successfully. To satisfy myself fully on the subject, the last season and the present, I have had one in operation. It has exceeded my expectations, and I now recommend it to the immediate use of all our farmers. It will enable one man, with a steady horse and boy, to perform at least as much work in gathering hay into winrow and pile as six good men can accomplish, and as clean as is commonly done in raking by hand. The experiment which I have made will warrant this statement. The expense of the *Horse Rake* is small, not exceeding two dollars. It is constructed thus: Take a stick of timber, of say any stout wood. Ash, hessnut, fir, or spruce will be sufficient—ten feet long if your mowing lands are free of obstructions, and if obstructed with stumps or rocks, then shorten the head of the rake to our convenience. The rake head may be three and a half inches by two and a half diameter, or as you please. The teeth should be twenty-two inches long, and one inch by one inch and a half diameter, and set firmly into the head about two inches and a half apart. These teeth may be made of firm white ash, or wal-

nut, or oak. The teeth should be made at the end to turn up, so as to run on the ground like a small sled, and not into the earth. On the top of the head should be fixed about seven small standards, eighteen inches long, to prevent the hay falling over the head. In the centre of the head fix two handles, such as you have on ploughs, at a suitable distance, to guide and steady the rake. From the ends of the rake, extend a rope, of the size of a cart rope, to fasten the horse's collar. The distance of the horse from the rake may be such as to leave room for the hay to gather. Observation will soon direct the length of the ropes. Care must be used to have the teeth set even and firm, that they may run near the earth. This rake is used to collect the hay into winrow, or pile it—and it is useful in all grain fields to glean the scattered grain, and to lay down the stubble close to the earth to rot and promote putrefaction.

"P. S. A Horse Rake is in use on the farm of Thomas Gold, Esq. at Pittsfield."

The Farmers' Assistant likewise gives an account of this implement, corresponding with the above, and adds that "the teeth, when in operation, run along the ground nearly horizontally, with the points a little the lowest, so as to run under the hay, and as they take it up the upright slats retain it till the rake is full, when the man who follows it behind turns it over, and thus empties it in a row; then lifts it over the hay, thus emptied, and sets in beyond it; and so it proceeds on, till it is again filled, and the same process again repeated.

"When one strip across the piece is thus raked up, the horse is turned round, and another strip is raked in the same manner, emptying the hay at the ends of the last heaps raked up, so that in this way winrows are formed. When it is thus raked into winrows, it is dragged up by the rake into bundles large enough for making cocks."

HOEING CORN, GARDEN VEGETABLES, &c.—Some farmers hoe their corn twice, others three times, but it is believed that it is rarely hoed two often. We have heard a person observe that he hoed a small patch of corn in his garden every morning, Sundays excepted, from the time that it was an inch or two in height, till the top stalks or tassels made their appearance, or as the phrase is, the corn had "*tostled out*." The consequence was that the corn came forward with uncommon rapidity, and he had ears fit to roast more than a fortnight earlier than his neighbors, whose corn with equal advantages in other respects, was hoed but three times. Some people hoe their land very superficially, but they are but shallow cultivators. Dr. Deane observed that "the deeper land is hoed, the greater advantage do plants receive from hoeing, if due care be taken that their roots be not disturbed, or too much cut to pieces." Mr. Cobbett (under the head *cultivation*, American Gardener, par. 178, &c.) says, "If the subject be from seed, the first thing is to see that the plants stand at a proper distance from each other; because if left too close they cannot come to good. Let them also be thinned early; for, even while in seed-leaf, they injure each other. Carrots, parsnips, lettuces, every thing, ought to be thinned in the seed-leaf.

"Weeds never ought to be suffered to get to any size either in field or garden. In England

where it rains or drips sometimes for months together, it is impossible to prevent weeds from growing. But in this fine climate, under this blessed sun, who never absents himself more than about forty-eight hours at a time, and who will scorch a dandelion root or a dock root to death in a day, and lengthen a water-melon shoot twenty-four inches in as many hours: in this climate, scandalous indeed it is to see the garden or the field infested with weeds.

"But, besides the act of killing weeds, cultivation means moving the earth between the plants while growing. This assists them in their growth; it feeds them; it raises food for their roots to live upon. A mere flat-hoeing does nothing but keep down the weeds. The hoeing when the plants are become stout should be deep; and, in general, with a hoe that has spades, instead of a mere flat plate. In short, a sort of prong in the posture of a hoe.* And the spades of this prong-hoe may be longer or shorter, according to the nature of the crop. Deep hoeing is enough in some cases; but in others digging is necessary to produce a fine and full crop. If any body will have a piece of cabbages, and will dig between the rows of one half of them twice during their growth, and let the other half of the piece have nothing but a flat hoeing, that person will find that the half which has been digged between, will, when the crop is ripe, weigh nearly, if not quite, twice as much as the other half. But why need this be said in an Indian corn country, where it is so well known, that, without being ploughed between, the corn will produce next to nothing?

"It may appear, that, to dig thus amongst growing plants is to cut off or tear off their roots, of which the ground is full. This is really the case, and this does great good, for the roots thus cut asunder, shoot again from the plant side, find new food, and send instantly, fresh vigor to the plant. The effect of this tillage is quite surprising. We are hardly aware of its power in producing vegetation; and we are still less aware of the distance to which the roots of plants extend in every direction."

We believe, however, that after plants have arrived at nearly their full size, it injures them to cut off their fibrous roots. While the plant is young and thrifty it may have the power to re-produce its roots if they are cut off, but not so when it has come near to maturity. Dr. Deane says "hoeing should cease, or be only superficial, when the roots are so far extended as to be much injured by hoeing. They will bear a little cutting without injury. For when a root is cut off several new branches will come in its place." Our farmers in general, and we believe correctly, decline to use the plough or horse hoe, among corn, after it has set for ears, as the phrase is, or in other words, the ears have begun to form; because, they say it injures the roots and prevents the ears from filling so well as they would do otherwise. But if weeds abound among the corn at the later periods of its growth, they should be pulled up by hand, destroyed by shallow hoeing, or it would be better than leaving them untouched, to clip them off with a scythe or sickle, that they may at least be prevented from running to seed.

* Hoes of a similar kind may be obtained at the Agricultural Establishment, No. 20, Merchants' Row, Boston.

One of the purposes to be effected by hoeing is to nourish the plants by drawing fresh soil near to them, and by the same means to cause them to stand more firmly. But this should be done with caution. Hilling excessively is hurtful, as it does not permit the roots to have so much benefit from the rains, and too much hinders the influence of the sun upon the lowermost roots. If, however, the ground be dry, and the season warm, it may be well to make the hills somewhat larger and higher than would otherwise be expedient.

It seems to be a point not yet fully settled whether it is best to cut off, or otherwise destroy the suckers of Indian corn. The Farmers' Assistant tells us that "the growth of suckers is injurious to the crop, and ought to be either pulled up, or bent down to the ground with earth sufficient to kill them; and this is believed to be the better way, as by this mean the principal stalk is not injured by wounding."—We believe in cultivating the premium crops in Massachusetts, the suckers were generally taken away. In the Hon. Mr. Hunnewell's account of his raising a crop of one hundred and eleven bushels of corn to an acre, (Mass. Agricultural Journal, vol. vi, p. 242) it is stated that "immediately after half hilling, the suckers were all carefully cut off." Col. Valentine's statement of having raised 116 bushels and 28 quarts of corn to an acre, (see page 178 of our paper,) mentions that "all the suckers were pulled out in July; and in August all the suckers were again taken away, together with the false stalks, and those that were smutty." Mr. Lemuel Davis, however, by an experiment, which is related in our first No. page 8, arrived at a different result. The gentleman last mentioned states that when he cut off the suckers from the stalks, he found "such a proportion of the juice wept out where the sucker was taken off that the growth was not so large, and the ear set higher upon the stalk; on the part where the suckers were not taken off, the corn was thicker set and more prominent—the ears set ten or twelve inches higher the ground, and were a good proportion larger." On the whole, we think that further experiments to ascertain the effects produced by removing the suckers are much to be desired; and we hope that farmers in general will pay so much attention to this subject as to take off or bury the suckers in at least one row of their field, and compare its product with the next in which the suckers are suffered to remain. The time and manner of performing this operation should also be carefully noted, and the whole made public for the benefit of the community.

The last number of the *Massachusetts Agricultural Journal* contains as much useful and interesting matter as any preceding No. of that valuable work. We propose, from time to time, to replenish our columns from that source, at the risk of incurring the displeasure of certain fault-finders, who object to every article which is not altogether original, or written expressly for the publication in which is made its primitive appearance. Although many of our readers have seen the articles which we have extracted, or may extract, from the work adverted to, yet many more residing in distant

quarters of the Union, may receive them thro' the medium of the *New England Farmer*, to whom otherwise they would be like a fountain sealed, or a light, which though brilliant, is without the limits of their horizon. It would be folly for us to deprive ourselves or our readers of the benefits resulting from a wholesome, invigorating, and fertilizing stream, merely because its fountain head is not situated on our premises. Besides, we are so well acquainted with the characters, views and motives of the gentlemen who conduct the *Massachusetts Agricultural Repository*, that we are confident they will not be displeased if we avail ourselves of the fruits of their labors, since we cannot in any other way so effectually promote the objects of their institution.

NEW AGRICULTURAL PUBLICATION.

By the politeness of JESSE BUEL, Esq. of Albany, we have received a copy of the second volume of "*Memoirs of the Board of Agriculture of the State of N. York. Published by authority.*" This work consists of more than 500 pages, octavo. It contains, we believe, quite as much valuable information, relating to the subjects which it professes to embrace, as any work of the kind ever issued from the American press. Indeed, nothing less could have been expected from the joint efforts of many of the most enlightened, liberal and philanthropic individuals in that large, populous and enterprising state, whose improvements in canals, steam-machinery, &c. &c. have realized what, half a century since, would have been thought to have been the dreams of a sanguine and visionary speculator.

In speaking of this work we shall not presume to take the chair of a critic, and shall in no other way express our high estimation of its contents than by giving, from time to time, such extracts as may in our opinion prove most beneficial to our readers. The following, from the preface, is all we have room for in the present number.

"The original articles in this volume give it a strong claim to public attention. But a few years have passed, since the business of cultivating the land, was generally considered here as a coarse occupation, giving a precarious living to the most laborious and the most numerous portion of the community. We now find active and intelligent men spread through the state, pursuing with spirit the improvements in agriculture, which a long experience has taught other countries, and devising practical and rational methods of accommodating them to our own climate and soils.

"To what is this important revolution owing? How is it that the farming interest has been so astonishingly redeemed from the unjust humiliation into which it had sunk?

"The answer is, that public patronage has elevated the condition of the yeomanry in their own estimation: it has given them confidence in their own resources, and in thus laying the best

foundation for individual and national contentment, has already produced its own reward. For certainly this great moral consequence far exceeds in importance, the comparatively insignificant means which have been applied to produce it."

[COMMUNICATED.]

We extract the following notice respecting Sheep, from the *Montrose Gazette*, published in Susquehanna County, (Penn.)—a county settled principally by farmers from the New England States, and which they have changed in twelve or fifteen years from a wilderness to a well-peopled farming district. The county has been described as high land, well watered, healthy, and particularly well adapted to grazing.

"My neighbor, Mr. Crandall, in the fall of 1818, had six ewes. In the spring of 1822 his little flock had increased to *thirty-two*, although in November 1819 he had killed two; in November 1820 he sold two and killed seven. In the summer of 1821 he sold seven, and in November following he sold seven and killed three. In November, 1820, he bought one ram, which with one of his ewes, died the following spring. He bought another ram in November 1821. Recapitulation—originally six; sold sixteen; killed twelve; bought two; lost two; remaining, thirty-two. The increase from the six, FIFTY-FOUR.

"J. Adams bought twelve ewes in September 1821, from which he raised sixteen lambs the following spring. The same year he sold from his flock ten, and killed six. From the remaining twelve he has this spring raised fourteen lambs. One of last years lambs, at one month and one day old, weighed forty-four and an half pounds.

"Mr. Follet has three ewes, each of which on the same night this spring, brought him three lambs, all of which are now living and thrifty." A FARMER.

To the Editor of the *New England Farmer*,

Sir—I am told the *Canada Thistle* is travelling East, and has already reached Vermont, New Hampshire and a part of Massachusetts. Indeed, I perceive it has found its way on to my own small farm, to my no little dismay.—Will you, Sir, permit me to ask my brother farmers to communicate to the public, through the medium of your paper, all they know about this plant; and particularly to state the best and most successful method to exterminate it. By so doing, they will much oblige

MIDDLESEX.

WHOOPIING COUGH.

A writer in the *Fredericktown Herald* gives the following as a remedy for this distressing complaint.

Dissolve 80 grains of salt of tartar in a pint of clear water, add to it 40 grains of cochineal, and sweeten it with loaf sugar. Give a child one year old, one tea spoonful four times a day, with a table spoonful of barley water immediately after. Boiled apples put into warm milk, may be the chief food, if they can be had. This will relieve the patient in two or three days, and cure in a week.

In the last stage of this complaint, take the tincture of bark 1½ oz. paregoric ½ oz. tincture of cantharides 1 drachm, mix them, and give to a child one year old 15 drops 3 times a day, and so on in proportion to the age of the patient.

FOREIGN.

Nothing new or interesting from the theatre of the French and Spanish war has transpired since our last. There has been a late arrival at N. York, Capt. Doane, from Cadiz; but he brought intelligence from that city no later date than the 15th of May. Accounts from Andorra have been received by Capt. Tunison, as served in our last, to the 20th of May. We know nothing more of the alleged masterly manoeuvres of Don Mina, in thrusting himself between the French army and the frontiers of France; and we may as well pour our curiosity from day to day, till authentic accounts of a later date shall be received. We might give our readers a column or two of *guess work*, or present them with a few samples of the *buz!* *buz!* of English and American journalists, who make use of any inventions to keep curiosity awake and expectation on tiptoe, as well as make news from "the whole cloth," for the purpose of appearing to know what cannot be known.

From South America accounts are confused and contradictory, every new report showing the fallacy of that which immediately preceded it. The last intelligence in that quarter was received in New York, by Caracas papers, which came down to the 31st of May. They state that the Columbian squadron, consisting of vessels, has entered the Laguna of Maracaybo, under the command of Padilla; and that troops from Rio de la Hache arrived on the 19th in the line of Garatilla, and had there beaten 700 men belonging to Morales. Gen. Padilla has taken all the sea force of Morales in the Ragoon, and keeps him entirely surrounded, and has cut off all his resources. Morales cannot now escape, or rally any new force. He is carried out.

By an arrival at New York in 36 days from Pernambuco, information has been received that Lord Cochrane, with the Imperial Brazil fleet of 11 vessels, of which one is a line of battle ship, was blockading St. Salvador. Several thousand troops had recently arrived from Lisbon, to recover, if possible, and support the dominion of the mother country. St. Salvador is presented, however, as the only place in the possession of the royalists; and the patriots shut out the country to within a few miles of its gates.

DOMESTIC.

Robberies.—On the 26th inst. the store of Mr. Flavelter, at the head of Long Wharf, was entered, and a desk broken open, from which the robbers took a small sum in change. They also carried off a quantity of goods of different kinds. A reward of \$20 has been offered for apprehending the offenders.—On the same evening the printing office of Joseph W. Ingraham, in Franklin Avenue, was entered, and the counting room desks broken open. About \$40 was taken from one of the desks.—The next night, store No. 8, Long Wharf, was broken open, and goods to a considerable amount stolen therefrom.

Distressing Accident.—On the 18th ult. a quantity of gunpowder, in a waggon, was exploded in Dover, N. H. By this explosion two men were so badly burnt to die within twenty-four hours. A third person was so much injured that it is feared, if his life is spared, his sight cannot be restored. The waggon had stopped in one of the most frequented parts of the village. Some powder from a cask had fallen on the ground near the waggon. To this some idle and mischievous boys set fire, in the absence of the owner. The fire communicated to the straw in the waggon. An alarm was given, and the inhabitants hastened to extinguish the blaze; but the owner, informing them that it contained 24 or 25 casks of gunpowder, checked their progress. The horses set out with the blazing waggon in the direction of the most frequented street, the citizens turned them towards the river, which they nearly reached. Four or five persons, who had been informed of the contents of the waggon, attempting to unharness the horses, the powder took fire, injured three of them as above mentioned. One of the horses was so much hurt that he died soon after, the other is rendered useless. The waggon was blown to atoms. The coat of the owner, which lay on powder, was blown nearly across the river; and the saddle of one of the horses was blown into the air, and lodged on the roof of an adjacent house.

The persons burnt had sufficient presence of mind to plunge into the river. The explosion took place near a large brick store, which sustained the principal damage.

New Settlement.—Stephen Austin, a North American, has formed a settlement with three hundred families in Texas, and they have solicited the Mexican Congress to be naturalized as citizens of Mexico.

The Mississippi.—This river had fallen on the 8th ult. at New Orleans, about seven inches, but was still rising at the mouth of the Ohio, and the Upper Country was so inundated as to cause great destruction of the crops. For the distance of six or seven hundred miles up, nothing was to be seen but the tops of trees.

New Poem.—Solomon Southwick, Esq. Editor of the Albany Plough Boy, is about to publish a Poem, entitled "The Pleasures of Poverty."

More Saxon Sheep.—We learn that the Hon. Joseph Strong, of South Hadley, has recently received from Saxony, by way of Hamburg, two Saxon bucks and three ewes, in fine order. The spirit of enterprize and improvement manifested by Mr. Strong and by Messrs. Bates and Shepherd of this town, in introducing into the United States the fine woolled sheep of Saxony, is highly creditable to them, and will, we are persuaded, be productive of beneficial consequences to our country. *Northampton Gazette.*

A machine for making Pins is in operation at New York, belonging to Mr. H. Whittemore, which makes 30 pins in a minute.—In the British mode only 14 are made in the same time.

A new carriage has been invented in Philadelphia, which is propelled by the weight of persons who ride in it.

Notice is given in the Albany Daily Advertiser, for the benefit of all sturdy rogues and beggars, that a Stepping Mill is about to be erected in that city.

Internal Improvement.—The example set by the populous and powerful state of New York, has given an impulse to internal improvement throughout the United States, which deserves every encouragement. In Pennsylvania, Maryland, Virginia, North and South Carolina, and in Ohio, canals are in contemplation, and in a course of execution, which cannot fail to increase the wealth of those states, and add greatly to the general prosperity of the Union. The present moment is extremely favorable to these improvements. The monied capital withdrawn from trade, and which, to a vast amount, must be in the hands of individuals, may be advantageously vested in these undertakings; and, from recent examples in this respect, we are gratified to find there is no lack of means to effect the objects in view. The investment of funds in such a way will be profitable both to the present generation and to posterity.—*Washington Gazette.*

Important Discovery.—Some fine specimens of rich lead ore have lately been found near the surface of the earth, in a field belonging to Mr. Samuel Chase, in White Creek, in Washington county, Pa. More than a dozen hands were employed, for several days, in further investigating the extent of the mine.

The plant, vulgarly called *Pokeweed*, is recommended as a specific and sovereign remedy for the cancer. The recommendations appear to rest on a solitary experiment made by a person of color, who by accident threw the leaves of this plant over a cancer to keep off the flies. Finding unexpected relief, he repeated the operation, and was entirely cured.

The brine in which cucumbers are preserved, is discovered to be fatally poison to cattle and hogs. A gentleman in a neighboring town has lost several cattle and hogs in consequence of their drinking it.—*Rulland Her.*

The fly has ceased its ravages in some parts of Virginia, and the prospect respecting wheat is brightening. A good rye harvest has commenced—and corn looks well.

Dear Fruit.—In England, in April, a person gave two guineas for two cherries raised in a hot house.

The New York Canal Commissioners have at length decided that the Great Western Canal shall terminate at Black Rock, instead of Buffalo, as was at first contemplated.

Wm. M'Ree, late of the corps of Engineers; Lieut. Col. R. Lee, Superintendent of the National Armory at Springfield, Mass. and Capt. G. Talcott, of the Ordnance Department, have been appointed to explore the Western Country, under the act passed at the last session of Congress, for the establishment of a National Armory upon the Western waters.

Mistake corrected.—In our paper No. 47, p. 371, is a "receipt for destroying caterpillars," &c. in which it is directed to "take equal parts of turpentine and train oil," &c. as an application to destroy those insects. It should have been "take equal parts of spirits of turpentine," &c. This mistake is important, for the receipt, as it now stands, would probably prove ineffectual. The reader will please to correct it, by inserting *spirits of*, after the words "parts of," in the first line of the receipt.

DIED, on the 27th June, at his seat near Milford, His Excellency JOSEPH HASLET, Governor of the State of Delaware.

In Amherst, on Monday evening last, very suddenly, Rev. ZEPHANIAH SWIFT MOORE, D. D. President of the Amherst Collegiate Institution. His disease was an attack of the bilious cholera.

PRICES OF COUNTRY PRODUCE, &c.

[Revised and corrected every Friday.]

		FROM		TO	
		D. C.	D. C.	D. C.	D. C.
ASHES, pot, 1st qual.	ton.	143 00	145 00		
pearl do.		153 00	155 00		
BEANS, white,	bush	1 00	1 10		
BEEF, mess, 200 cwt.	bbl.	9 50	9 75		
cargo, No 1,		8 50	8 75		
" No 2,		7 00	7 25		
BUTTER, inspect. 1st qual.	lb.	11	12		
" 2d qual.		9	10		
small kegs, family,		13	14		
CHEESE, new milk		7	8		
FLAX		8	9		
FLAX SEED	bush	25	30		
FLOUR, Baltimore, superfine,	bbl.	7 75	7 87		
Genesee		7 62	7 87		
GRAIN, Rye, best	bush	4 50	4 75		
Rye		72	75		
Corn		58	60		
Barley		68	70		
Oats		40	42		
HOGS' LARD, 1st sort	lb.	11	12		
HOPS, No 1,		8	12		
LIME,	cask	1 25	1 37		
OIL, Linseed, American	gal.	65	00		
PLASTER PARIS	ton.	3 00	3 25		
PORK, Navy Mess	bbl.	12 00	12 50		
Bone Middlings		14 00	14 50		
Cargo, No 1,		12 00	12 50		
Cargo, No 2,		11 00	11 50		
SEEDS, Herd's Grass	bush	2 00	2 25		
Clover	lb.	8	9		
WOOL, Merino, full blood, washed		55	62		
do do unwashed		46	50		
do 3-4 washed		50	55		
do 1-2 do		45	47		
Native do do		38	40		
Pulled, Lamb's, 1st sort		55	60		
do Spinning, 1st sort		50	55		
PROVISION MARKET.					
BEEF, best pieces	lb.	8	10		
PORK, fresh		7	8		
VEAL,		6	8		
LAMB, per quarter		37	50		
POULTRY,		10	12		
BUTTER, keg & tub		13	14		
lump, best		15	16		
EGGS,	doz.	12	14		
MEAL, Rye,	bush	75	80		
Indian,		75			
POTATOES,		40	45		
CIDER, liquor,	bbl.	1 50	2 25		
HAY, best,	ton.	18 00	22 00		

THE SPLENDORS OF THE SETTING SUN.

BY T. G. FESSENDEN.

Sol slowly sinking down the steep of heaven,
 With softened splendor greets the musing eye;
 Resigns his throne to "sober suited even,"
 But decorates, while he deserts, the sky.

His noon day beams, insufferably bright,
 Are now succeeded by a milder blaze,
 And every slanting filament of light
 Hear's kind and cheering effluence conveys.

Now let me wend my solitary way
 Where groves and lawns present alternate charms;
 Gaze on the glories of the waning day,
 Till night shall fold me in her dusky arms:

Mark how the clouds now seem like molten gold,
 And now like snow banks heap'd on banks of snow;
 Now dash'd with azure softer hues unfold,
 Now shift and kindle to a furnace-glow!

Compared with these, what is the pride of art?
 Your petty palaces, and pigmy spires—
 The paltry pageants of your noisy mart—
 And all the city-connoisseur admires?

Should the whole race of man unite as one,
 To celebrate some glorious festal day,
 The simple splendor of the setting sun,
 Would far transcend their most superb display.

From the London Museum for April.

MR. PERKINS' STEAM ENGINE.

We have no recollection of any invention connected with the useful arts having produced so great a sensation among scientific men, as the improved steam-engine of Mr. Perkins. It is not surprising that manufacturers, whose interests are entirely involved in the construction of engines on the lower-pressure system, should look with some degree of scepticism and jealousy towards the bold invention of Mr. P.; nor that they should raise doubts in the public mind as to the imminent danger to be apprehended from the use of high-pressure engines generally. But in the present case, many scientific men, totally unconnected with manufactures, seemed disinclined, in the first instance, to admit the possibility of the improvements suggested by Mr. P. being reduced to practice.

Notwithstanding the superior economy and increase of power in high-pressure engines of the usual construction has been gradually introducing them in various manufactories, where the proprietors take the precaution of employing *only* men of intelligence to superintend their concerns; the enormous increase of power ascribed to the engine of this gentleman's invention seemed perfectly *incredible*, until he produced conviction by the actual test of experiment. As we have had an opportunity of witnessing the operation of this beautiful invention, we shall give our readers as good an outline of its construction as we are enabled without the aid of a plate for reference.

Mr. P.'s invention is founded on a most invaluable discovery—that water is capable of enduring an elevation of temperature even to a red heat, or perhaps an indefinite extent, by being subjected to a very high degree of pressure; which pressure, while it permits the expansion of the molecules of the water *as a fluid*, prevents their further expansion, or the liquid assuming the *gaseous* form of steam.

The profound science and resolution, requisite to manage experiments of this dangerous

character, can only be appreciated by those who have devoted some attention to chemical subjects. This gentleman, however, has united to this discovery respecting the laws of expansion, the most simple and beautiful application of mechanical science, in the construction of his new steam-engine, which is briefly as follows:—Instead of the boiler of the ordinary engines, Mr. P. substitutes a cylinder, which he terms the *generator*. This cylinder is made of gun-metal, (the most tenacious and least liable to oxydation) of about three inches in thickness, closed at both ends, with the exception of a valve in the top, opening outwards; which valve is loaded with weights equal to the state of the pressure from the expansion of the heated water within. The cylinder is placed vertically in a cylindrical furnace; consequently it becomes surrounded on all sides with the fire, and soon acquires a temperature of 400 or 450 degrees Fahrenheit. The production of steam is effected by an injecting-pump throwing in water at one part of the generator, which displaces through the valve an equal volume of hot water from the generator. The water, at 420 degrees, passing into the induction or steam-pipe, instantly expands into steam, communicates with the working cylinder, and gives motion to its piston, which is placed in a horizontal direction, for the more convenient application of its powers to machinery. The reciprocal action of the piston opens and shuts the apertures of the *induction* and *eduction* pipes, by means of rotary valves, as usual in some other engines. But the operation of generating and condensing the steam is effected so instantaneously by this engine, that the piston performs about 200 strokes in a minute, when the engine is at full work. Indeed, considering the small extent of surface, the power of this engine is almost incredible, the generator containing only about eight gallons of water, and the working cylinder not exceeding two inches in diameter, with a stroke of the piston about 12 inches in length. The piston rod gives motion to a crank and fly-wheel similar to other engines.

A most decided improvement is also made by Mr. P. in condensing the steam under a very great degree of pressure, and at a temperature of about 320 degrees, and in this state returning into the reservoir for the successive supply of the generator. In consequence of this economical arrangement, the space occupied by the engine with all its appurtenances, does not exceed an area of six feet by eight. The present mode is calculated as equal to a 10-horse power; and Mr. P. considers the whole of the apparatus of sufficient size for a 30-horse engine, with the exception of the working cylinder and piston.—The consumption of coal for this engine is within two bushels per day, when at full work.

All risk of accident is effectually provided against, by the following ingenious contrivance. It should be remembered, that owing to the small extent of surface exposed to the expansive force of the steam, and the latter being generated *only* in sufficient quantity for each succeeding stroke of the piston, there is much less liability to accident from this engine than in most other high-pressure engines. To prevent, however, the possibility of such an event, the induction pipe, in which the steam is produced, is calculated to withstand an internal force of 4000 pounds to the square inch, and it

is also provided with a thin copper tube, which is calculated to burst at a pressure of 100 pounds; while the pressure under which Mr. P. works the engine, does not exceed 50 pounds on the square inch.

In order to demonstrate the perfect safety of the operation of this engine, notwithstanding this immense internal pressure, Mr. P. in his polite efforts to satisfy the scruples and fears of his numerous scientific friends, has, on several occasions, urged the power of the steam till burst open the sides of the copper tube without occasioning the smallest risk, either to the spectator, or to any other part of the apparatus. This mode of allowing the escape of the steam by rending open the sides of the ball, (which made of a determinate strength,) is probably superior in the certainty of its operation to any modification of safety valves.

It is also a very remarkable fact that the steam which escapes in this case is not by any means of that elevated temperature which might have been expected from its prodigious expansive force. This fact seems to involve some points connected with the doctrine of latent heat, or the conversion of fluid into gaseous matter, and *vice versa*, with which we are at present, but very imperfectly acquainted. We understand Mr. P. is further engaged in some very important enquiries on this most intricate branch of natural philosophy.

The improvements of Mr. P. in the steam engine, we cannot help considering as one of the greatest triumphs of art, even in this highly inventive age. It will, in all probability, effect a greater revolution in operative manufactures, than even the first introduction of the steam-engine by Bolton and Watt.

We have not heard any comparative estimate of the price of Mr. P.'s engines, but we apprehend their original cost will be very considerably lower than that of others; while they can be worked with 1-10th part of the fuel, and occupy only a fifth part of the space required for those of the low pressure construction. The latter point is one of the highest importance, in situations where manufacturers are limited for room, as in the metropolis and other great towns.

The very superior economy of these engines over all others, not only in the consumption of fuel and water, but in the weight of materials must also render them peculiarly adapted to loco-motive engines; and we entertain little doubt that steam carriages will, ere another year has elapsed, become as generally adopted among us as steam vessels are at the present. And when we take into consideration the immense saving in the consumption and tonnage of coals, we are of opinion that Mr. P.'s invention will infinitely extend the use of the steam engine in navigation.

TERMS OF THE FARMER.

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NEW ENGLAND FARMER.

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Vol. I.

BOSTON, SATURDAY, JULY 12, 1823.

No. 50.

FACTS AND OBSERVATIONS RELATING TO AGRICULTURE & DOMESTIC ECONOMY.

BY THE EDITOR.

BEER MADE WITH HEMLOCK INSTEAD OF SPRUCE.

Judge Peters, of Pennsylvania, informs that Beer quite as healthy, and much more agreeable than that brewed with the Canada or Halifax spruce, is made by the infusion of hemlock branches, with the materials of which our common spruce beer is composed. It has been substituted for spruce for many years in my family, and we think it preferable in flavor to the Canada or Halifax spruce."—*Memoirs of the Penn. Agricultural Society*, vol. i, p. 25.

BREAD, FOOD FOR HORSES.

Judge Peters asserts that "General Pulaski, a Polish officer who served in the U. S. army during our revolutionary war) had a favorite charger, to whom he often gave bread, which the animal seemed to enjoy beyond any other food. In Holland it is a common practice to give horses rye bread, or baked provender.—The late Sheriff Penrose, who had a fine team of working horses, was in the habit of buying condemned ship bread, as the most nutritious, and profited by its advantages."—*ibid*, p. 236.

DUNG TOO MUCH ROTTED GOOD FOR NOTHING.

It was remarked by Judge Peters, that "during our revolutionary war, the late general P. Schuyler mentioned that he had once purchased a farm from the representatives of an old settler in the then colony of New York. A great inducement was, that some thousands of loads of dung had been accumulating for half an age; it having been considered as useless, when the land was fresh, and thrown into a vast ravine. At first the dung was operative, but the lower the mass was penetrated, the more worthless it became; till finally it would not compensate the labor and expense of hauling it out on the land."—*ibid*, vol. ii, p. 291.

STONES USEFUL IN SOME SOILS.

Stones cannot be picked off too close from sandy or loamy soils; but a considerable quantity of small stones are very useful in clay-loam for preventing its becoming too compact.—*Memoirs of N. Y. Board of Agriculture*, vol. ii, p. 20.

DIFFERENT MODES OF PLOUGHING DIFFERENT SOILS.

Loamy soils can never be ploughed too deep, nor mellowed too much; but sandy and clay soils should merely be turned over, in a flat furrow, and not afterwards ploughed so deep as to break the turf. For clay if mellowed too much will become mortar in wet weather, and bake in dry, and the sand will become too loose to support vegetation.—*ibid*.

The mode of ploughing sandy soils, according to the system adopted by the celebrated Duckett, an English farmer. "It was founded on three principles: 1. Ploughing very deep—a due degree of moisture was thus preserved in his light land, by means of which his crops were flourishing in seasons of drought, which destroyed those of his neighbors. 2. Ploughing

seldom, but effectually, by a trench plough, or what he called a skim-coulter plough, with which he buried the weeds that grew on the surface; he has been known to put in seven crops with only four ploughings; and 3. Occasionally raising a crop of turnips the same season, after a crop of wheat or of pulse."—*Code of Agriculture*, p. 15.

It is remarked by an eminent author, that if one ploughing to the full depth be given, once in 12, 18 or 24 months, shallow tillage afterwards, is, in many cases, preferable to frequent deep working, and especially for wheat, which loves a firm texture."* "This doctrine is well entitled to the attention of the practical farmer."—*ibid*, p. 302.

Although some soils of a very loose texture may be ploughed or pulverized with harrows to an extreme, we believe this offence against good husbandry is very rarely committed. But that a loose soil may be and sometimes has been ploughed and harrowed to excess there is but little doubt. Wherever there is a want of coherence in the particles of the soil, too frequent ploughing, harrowing, &c. exposes the best part of it to be blown away by wind, or washed off by rain. When the soil has too little cohesion, or is easily made "mellow as an ash heap," as the phrase is, it should be disturbed no more than is necessary to keep it clear of weeds, and place the seed in the ground. What ploughing and harrowing is found to be indispensable, in such a soil, had perhaps better be performed in the spring than in autumn; for if the texture of the soil is naturally too loose, and it be ploughed in the fall, the frosts of the winter succeeding will greatly increase the evil.

Dr. John H. Steel, of the county of Saratoga, state of New York, in "Notes to the Geological Survey of Saratoga County," published in "*Memoirs of the Board of Agriculture of the State of New York*," page 155, observes that "The idea of rendering the earth mellow for the reception of the seed, which means, to have it finely pulverised and light, in common language like an ash heap, does not appear to be so important as many of our farmers seem to imagine. The great object of ploughing is to destroy and cover in the earth every species of vegetation, that the crop to be expected from the seeding may have nothing to choke and impede its growth, or deprive it of any share of the nutriment that there is in the soil, which would be useful to its own health and vigor; when this object is effected, the plough can be of no further use, except to cover the seed.

"The prevalent opinion, that turning in the dew, or exposing a new surface of the earth frequently to the rays of the sun, enriches the soil, has likewise no foundation in fact. The earth can imbibe nothing from the sun's rays but heat and light, which it possesses in sufficient quantity for all the purposes of vegetation, when it has not been moved at all. Who has not observed the most luxuriant spontaneous productions, where the soil had not been stirred for years? And it is a maxim among farmers, that

* Young's Calendar, p. 510.

"where weeds grow luxuriantly, every other vegetable will." Indeed, the frequent exposure of a new surface of the soil, during the summer months, must expose the volatile principles which it may contain to exhalation, and thereby endanger the loss of one essential article to its fertility, which in soils that contain much animal matter is very considerable. The turning in of the dew is equally absurd; it can contain no ingredient that is not found in rain water, which is nearly pure. The dew is simply the exhalations of the day, which are condensed during the cool of the evening; like rain, it forms an essential moisture for the support of vegetation, but can have no other effect."

The same writer observes (page 157, of the same work) "That frequent ploughing is useless, and frequently injurious, may be further inferred from the experience of many of the most observing farmers. The practice of merely turning over the sod and sowing on the furrows is becoming every year more popular, and an intelligent farmer has just given me the following account of a process which he tried the season past.

"Having a clean clover field, which he intended to plant with Indian corn, a part of it was ploughed and planted in the usual way, while the space between was left unmoved and green with clover, to be turned over to the hills during the process of hoeing; the corn was planted on the centre of the ridge. The success of this process was very observable through the season; the corn had a much more rapid and luxuriant growth, and at harvest yielded a considerable more abundant crop than the other parts of the field.

"The result is imputed by my informant, to the following causes: 1st. The ground beneath the hills of corn remaining unmoved and covered by the furrows, retained the moisture longer than that which had been turned over and exposed to the air and sun; hence the plants did not suffer by the drought, as did those in other parts of the field. And, 2dly. The turning of the sod, which was permitted to grow between the rows, up to the hills at hoeing time, furnished the roots, as they extended from the ridge, with a new supply of vegetable matter and moisture."

Other writers, however, among whom may be mentioned Mr. Curwen, a very celebrated English cultivator, assert that frequent ploughing and hoeing promotes moisture, and stirring the soil is the best of all remedies against drought. Mr. Curwen "holds that by constantly turning the vacancies between the rows or beds, in every direction, he can in dry weather procure for the plants something like a compensation for rain, in the evaporation of moisture from the earth. The first day's exhalation from ploughing is in the proportion of 950 lbs. of water per hour from an acre. The evaporation decreases on the second day a third part, and continues to diminish for three or four days according to the heat of the weather, when it entirely ceases; and is again renewed by fresh ploughing. A field of cabbages were this year set on very strong stiff clay, which previous to

their being planted was in high tilth. The severe drought which succeeded the rains that fell soon after the setting, *baked the ground perfectly hard*. The plants made little or no progress; they were seen by a friend of mine, on Monday, the 26th of May, as I was commencing the *breaking* of the ground with the ploughs. They were worked for the whole week. On Saturday they were seen again by the same gentleman, and he could scarcely be persuaded they were the same plants. The week had been very dry, with a hot sun, and strong north east winds." Mr. Curwen attributes the rapid growth of his cabbages after the hoeing above mentioned to the absorption of the evaporation produced from the earth. According to him the earth beneath the surface, which was stirred by the plough, furnished the water of evaporation, which the soil thus stirred imbibed like a sponge or fleece of wool, and retained for the use of the plants. Dr. Steele, however, as well as some other writers, is of opinion that frequent ploughing, in a dry time, makes the soil drier than it would be if left at rest. The only way to reconcile these writers is to suppose that they are treating of totally different soils. A sandy soil, or a loam much inclined to sand, can scarcely be ploughed too seldom, provided you can keep weeds subdued, and the seed is properly covered. A clayey soil, or a loam much inclining to clay, can scarcely be ploughed too often, provided it is not too wet when you plough it. The sandy soil is like a riddle, and permits the water of evaporation as well as that of rain or dew to pass off too rapidly. By stirring it frequently you render its texture still looser, and increase its tendency to transmit instead of imbibing and retaining moisture which it receives from the earth or the atmosphere. A clayey soil, when well pulverized, is like a sponge, which imbibes moisture freely, and does not easily part with it. But if it once becomes dry and *baked* in the sun, it will require frequent and effectual ploughing to render it at all fit for the purposes of vegetation. A clayey soil should be ploughed in autumn, that the frost of winter may assist in pulverizing it. A sandy soil should be ploughed in the spring, as near the time of putting the seed into the ground as possible. A sandy soil should not be ploughed or hoed in dry hot weather; but a clayey soil cannot be stirred too frequently in such weather.

[BY THE EDITOR.]

NEW AND INTERESTING PAMPHLET.

A pamphlet has recently been published in this city, entitled, "*Remarks on the dangers and duties of Sepulture; or, security for the living, with respect and repose for the dead*. By a Fellow of the Massachusetts Medical Society. *Non defunctorum causa, sed vivorum inventa est sepultura*.—Seneca."* This production, in our opinion, does the highest honor as well to the head as the heart of its author, and ought not only to be found in the library of every man of science, but to be in possession of every house-keeper and head of a family. It is an 8 vo. pamphlet, containing more than 70 pages, and still has nothing superfluous, nothing which can fail to

* Burials were instituted, not for the sake of the dead, but for the benefit of the living.

be read with interest by every man who claims affinity to his species, and considers health or even life itself as blessings worthy of his attention.

We have long been deeply impressed with the importance of the subject of this pamphlet, and have heretofore exerted what little influence our limited talents, leisure and means of information might possibly give us, in warning against the danger of converting our cities into cemeteries, and suffering them to become repositories of animal and vegetable putrescence, which not only offends the senses, but more frequently than is generally imagined, poisons enjoyment, ruins health and destroys life. But, till we read the pamphlet we now allude to, we had no adequate idea of the very malignant nature of the evils we deprecated, nor the power and universality of those sources of disease and pestilence which are so ably developed in this publication.

We do not intend this article for a *review* of the work to which we would be happy to call the attention of the public, but merely such a *notice* as would be likely to induce our readers to become the possessors of the information it contains, and which will be best obtained from the pamphlet itself. It would not be in our power to add any thing important to its contents, and should we attempt to give condensed views of the same subjects, we must of necessity omit what it is important should be generally known. We shall therefore give no farther specimens of the contents of the work, than what we judge may create an inducement to possess the *original* from which we have taken our *samples*.

Under the head "*Sepulture*," the author treats "of the various modes of burial, which have prevailed in the world," including the origin of the custom of depositing the dead in cities, under or near churches, &c. The author then inquires, "*What proof is there that putrid flesh ever did any harm?*" Under this head he gives a number of statements, drawn from undoubted authorities, of the *very virulent nature* of the effluvia arising from animal putrefaction under certain circumstances. The instances he quotes are numerous, some of which will apply as well to residents in the country, as to inhabitants of cities. Among those of the latter description are the following:

"Lancisi writes that a putrid ox occasioned the death of an unfortunate traveller in Pisaro.

"Lucian speaks of a wide spreading disease, which ravaged Pompey's army, near Durazzo, which originated from the putrefaction of horses that had been killed and left uncovered.

"M. Bernard relates the following fact. A large fat man had been superficially buried in the ground. The offensive gases, which soon arose from the putrid body, obliged the neighboring inhabitants to remove it. Three grave diggers undertook to remove it; two of them becoming sick at heart, and vomiting, gave up

the enterprise; the third—determined to finish it—persevered, fell sick, and died ten days after.

"In West Linton, some years ago, a school boy, getting into a new made grave, set about to open the projecting corner of a coffin, which so soon as he had penetrated, there issued a strong nauseous smell, on which he exclaimed that he was suffocated; he revived on being taken out of the place, but fell immediately ill of a petechial fever, of which he died on the seventh day.

"M. Chambon reports, on the testimony of several historians, and on the faith of President De Thou, that the Peruvians, animated by a just vengeance against the Spaniards, steeped their arrows in the putrid blood of their slaughtered companions, to make the wounds they inflicted the more surely and promptly mortal.—M. Iluzard says that a number of students in the French veterinary schools have suffered in like manner, in consequence of being wounded while dissecting horses and other animals.

"The decomposition of a body in the bowels of the earth can never be dangerous, provided it be buried at a sufficient depth, in a proper place, and the grave be not opened before its entire decomposition. The depth of a grave ought to be such that the external air cannot penetrate it; and that the exhalations which are developed should not be capable of forcing the earthy covering which detains them.

"Some years ago a man was killed by accident in Orange, New Hampshire. In about ten weeks after the burial the body was taken up to be deposited in a different place. Twenty persons were present at the disinterment of the corpse, which was in a putrid state. Thirteen of these persons fell sick of fever not long after their exposure to the putrid gases from the dead body, and several of them died. There was no other assignable cause for this fever than those noxious gases, the season and the place being otherwise quite healthy."

The author proceeds to cite a great number of other instances of the deleterious and often deadly effects which have originated from tombs and burial places improperly situated, and from imprudent exposures to the effluvia arising from vegetable and animal decomposition. He then quotes from the writings of the Rev. Dr. Dwight, a description of the cemetery at New Haven, which "may serve as a model to be improved by any amendments which genius or experience can suggest." Among other advantages arising from this cemetery, as enumerated by Dr. D. are the following:

"An exquisite taste for propriety is discovered in every thing belonging to it; exhibiting a regard for the dead, reverential but not ostentatious, and happily fitted to influence the views and feelings of succeeding generations. At the same time, it precludes the use of vaults, by taking away every inducement to build them.

"These melancholy, and I think I may say disgusting mansions, seem not to have been dictated by nature; and are certainly not approved by good sense. Their salubrity is questionable; and the impression left by them on the mind transcends the bounds of mourning and sorrow, and borders at least on loathing."

This pamphlet can admit of no answer—it is

impossible to gainsay or refute its positions because they are founded on *facts* which are neither few in number, doubtful as respects their evidence, nor equivocal as regards the lessons which they inculcate. To contend, after this, that deadly diseases are not communicated by effluvia arising from dead bodies, or other sources of animal putrefaction, must be deemed as absurd as to say that neither heat nor light emanates from the sun, or that darkness never succeeds to the close of the day.

We shall finish this notice with one other quotation from the conclusion of the work, which must recommend it more effectually to our readers than any observations of our own, though expressed in terms of eulogy commensurate with the merits and importance of the production.

"The author has no theory to propose but that of truth; no cause to plead but that of human life with its blessings and enjoyments. He wants no temple in order to find a grave. If he can but deserve the epitaph of SIMON PETER,* he will be content to be buried alone, or by the side of others,—like Aristides, in a field; like Homer, on the border of the sea; like Lysander, on a plain; or like any body else, who has been buried without parade, and without a tomb, at such a distance from his survivors as not to contaminate the air they might breathe, or the water they might use. He will be satisfied with any plan which shall give SECURITY TO THE LIVING, WITH RESPECT AND REPOSE FOR THE DEAD."

*Simon Pierre, vir, pius et probus,
Hic sub dio sepeliri voluit,
Ne mortuus cuiquam noceret,
Qui vivus omnibus proferat.

An American Translation, or Paraphrase.

Here lies,
Under the pure and breezy skies,
The dust
Of Simon Peter, the devout, the just,
Doctor of Medicine.—
At his request
He sleeps in earth's sweet wholesome breast,
Rather than in a noisome cemetery,
Under a church where all the great they bury.
'Twould be, he said, a sin
Past all enduring—
A sin which to commit he was unwilling,—
Should he, who, while alive, got fame and bread,
The sick by curing,
Entirely change his hand, and go, when dead,
The well to killing.

From the American Farmer.

Boston, June 3, 1823.

CULTURE OF THE HOP.

MY DEAR SIR—I have to apologize to you, for my negligence, in delaying so long to reply to your inquiries respecting the culture of hops. The method which I have practised, has been to prepare the ground in the same manner as is common for raising Indian corn; after ploughing it well, to harrow it, and then furrow it cross ways, so as to leave the hills eight feet apart—then to manure in the hill with *quite* as much as you would do for corn. In the spring, cut your slips from the *root* of the hop vine, about nine inches long, and lay them upon the manure, three or four in a hill, and cover them with earth about as deep as is usual to cover corn—thus the planting, &c. is complete. You

may for the *first* year, plant corn or potatoes between the hills, if you please; but I think it better economy not to do it, because you may plough with oxen between the rows, to lighten the ground preparatory for hoeing, which ought to be done three times during the summer. You get no produce the first year, and therefore it is unnecessary to pole them, unless perfectly convenient.

In the spring of the second year, you place, to each hill, two poles of about thirteen to fifteen feet above ground; and as the vine grows you train it to the poles. It is best to hoe them three times in the season, and (unless your land is very rich) it will be well to add some manure at the first hoeing. In gathering in the produce, you cut the vine to the ground, and pull up the poles, lay them across large wooden bins or boxes, made of rough boards, about ten feet long and five or six feet wide, into which the hops may be stripped off. This work may be performed by women and children. You take them from these boxes in bags, and carry them to the drying kiln, which is generally placed at the side of a hill or rising ground, for the convenience of taking the hops in upon the cloth or netting, which is stretched upon the sills above the furnace, which is at the bottom, where the fire is made, which ought to be with charcoal, because it gives the hops a much better flavor than by curing them with a fire made of wood. It is necessary that some careful person should attend, constantly stirring the hops with a rake during the process of curing, so that they may be well dried, without discoloring them. After you take them from the kiln, they must be spread (under cover) in an airy room, and constantly moved with a rake, once or twice a day, for ten or twelve days, when you may bag them for market.

This hasty, imperfect sketch, is from my own experience only. I presume you may obtain better information from those who have been longer in the habit of cultivating this vine.

I am, with great respect,

Your friend, and ob't servant,

ISRAEL THORNDIKE.

GORHAM PARSONS, Esq.

From the Connecticut Journal.

TO FARMERS.

The season promises a very great crop of grass, with a more than usual proportion of white clover, which flowers abundantly. It is very desirable that the farmers in New England should use the opportunity which is near at hand, of securing a good supply of the seed of this very valuable grass, which for many purposes excels all the other grasses.

Pasture grounds well stocked with white clover yield more nutriment for cattle and sheep per acre than any other, and cows fed on white clover give milk of a superior quality. Besides affording the best pasturage in the world, the white clover may be cultivated to advantage for hay. White clover and herds'-grass sown on rich land, make a thick bottom, and the crop of hay will be more valuable than the crop from the same land sown with red clover and herds'-grass.

Besides the advantages above mentioned to be derived from the culture of white clover, it has another excellence of no small importance to the farmer. The sward or turf formed by

white clover is always tender and easily ploughed or broken up, and all kinds of grain and corn flourish wonderfully well after this grass.

As white clover is what some would call natural to this country, that is, as it will after a few years get into land used for pasturing, the farmers have generally suffered it to grow, but have not saved the seed. This is a very great error. When land is laid down for pasturing and sowed with other grass, it generally happens that the grass-seed does not spring well, and the weeds spring up and occupy the ground a year or two before it is covered with white clover, whereas if the seed is sown, it will produce twice the quantity of seed. The best time for sowing white clover is in the fall with winter grain, but it will do well sown in the spring, and if by reason of drought it does not spring the first season, it will the next, as the seed is of a very imperishable nature.

The seed is collected by an instrument in form of a rake, with long sharp teeth set so near together as to let the flower stalks of the clover slip in between them, but not to allow the heads to pass. These will be broken off and collected on the upper side of the rake, and may be removed from time to time as the rake gets full. When the heads are collected they should be put into a dry place, and when thoroughly dried they may be threshed on a clean dry floor, and the chaff winnowed out.

The seed when clean is worth half a dollar a quart, or \$16 a bushel. The instrument for collecting will cost but little, and children can do the work, which may be done to very great profit.

From the New York Mercantile Advertiser.

FRUIT AND VEGETABLES.

Messrs. Editors—I have been very much troubled the present dry season with small insects and flies on my gooseberry, currant, and rose bushes, and on my cabbages and cucumbers—but I have now the satisfaction to inform you that there is no such thing in my garden, and I am indebted to an intelligent neighbor for a cheap and easy mode of destroying them. He informs me that he had made use of a cheap and simple remedy, and which had never failed—and which was to sprinkle his bushes and vines with soap suds night and morning for a few times, and the fly and insect had never failed to disappear. I have made use of this recipe, and the effect has fully equalled my expectation—and I am of opinion if applied to fruit trees, the effect would be equally favorable. It belongs to the public to be made acquainted with this simple expedient to remove so great an evil—and I shall, therefore, be obliged to you if this small communication can have an insertion in your paper. G. C.

For some remarks on the use of soap suds for manure, as well as an antidote against the ravages of insects, see New England Farmer, page 333.

CURE FOR THE ASTHMA.

Cut six penny worth of camphor into pieces the size of a small pill, and put them into a phial, for the convenience of the pocket, and whenever (night or day,) the spasmodic cough or nervous breathing commences, chew and swallow one or more of these pieces, as the case requires. The experiment may be worth a trial.—London paper.

From the Manufacturers' and Farmers' Journal.

WOOL.

I observed in a late number of the Journal,* an extract from a southern paper, purporting to be a communication from a farmer near Alexandria, requesting information upon the subject of the difference of the price of wool in Alexandria and Boston. The Alexandria farmer deems it a mystery that imported wool should command in Boston, seventy-five cents to one dollar twenty-five cents per pound, while he is selling the produce of his flocks at forty cents the pound, and proposes that the growers of wool should hold free communication with each other in order to maintain their prices. The difference is ascribed by the writer with much illiberality and injustice to a "mere eastern trick," to defraud the agriculturists of the south of the fair value of their fleeces. He considers "that since Congress has given encouragement to our manufactures, an equal encouragement should be extended to those who raise the wool, which is the raw material."

It is of much importance that prejudices and erroneous impressions should be dissipated, particularly when they affect the local feelings of different sections of our country. The growers of wool as well as the manufacturers of that article should have a proper understanding of their mutual interests, without harboring unkindly suspicions of each other. The Alexandria farmer observes with much justice that "wool is becoming too important an article not to be entitled to some attention."

Agreeably to the request contained in his communication, I shall endeavor to explain the cause of the difference in the price of foreign and domestic wool as sold in this country.

This difference is owing partly to the relative fineness of foreign wool, and partly to the superior manner in which it is put up for the market. The imported wool is usually assorted into three or more different grades, with appropriate marks to designate the bales containing each grade. This wool is thoroughly washed in a weak lye, to scour from it the yolk or grease peculiar to wool in its native state. By this process it loses from 25 to 60 per cent. of its weight in the rough state, and of course sells for an enhanced price after the operation. The farmers of the United States are satisfied with merely washing their sheep in the river previously to shearing them. This operation commonly scours off but an inconsiderable proportion of the grease, when performed with the utmost care. When the sheep are washed, as they usually are, in a careless and transient manner, and are afterwards left to run several days before they are sheared, their fleeces are often saturated with oil to the amount of one half of their weight. It is probably owing to this circumstance that the Alexandria farmer complains that he obtains less for his wool, of equal fineness, than is paid elsewhere for foreign wool well cleansed. The account would stand thus:

Cost of unwashed wool at 40 cents per lb.—10 lbs. is \$4. Loss by washing, say 50 per cent.—5 lbs. Remaining of washed wool 5 lbs. cost \$4, or 80 cents per lb.

As it regards the encouragement afforded to our woollen manufactures by Congress, the Alexandria farmer seems to labour under a mis-

take. No particular act has been passed by Congress with the express view of protecting the woollen manufactures, but only for the purpose of revenue. They are left to struggle against the overwhelming capitals of English manufacturers, and to sustain themselves as well as they can under the discouraging effect of excessive foreign importation. Few persons are aware of the vast sums annually remitted from this country, merely for the articles of cloth and cassimeres. By the last return of the Secretary of the Treasury for the year ending on the 30th of September, 1822, the imported cloths and cassimeres amounted in value to eight millions four hundred and ninety-one thousand dollars—being more than a tenth part of all the importations of the country. The numerous manufacturers in different parts of the U. States, furnish a great additional supply of cloths, which are now often preferred at the same prices to foreign cloths. It behoves many of those who are the most violent in their prejudice against the skill and workmanship of their fellow countrymen, to look well to their tailor for the origin of the coats they wear. These woollen manufactories have in many places ceased operating on account of the depressed state of the business. Any proposition therefore that may tend to raise the price of the raw material they manufacture, without at the same time advancing the price of their goods, must tend still more to discourage and to crush them. The value of imported wool during the year ending on the 30th of September last, amounted to three hundred and eighty-seven thousand dollars. There can be but little doubt that some protective measures will be adopted by the next session of Congress in favor of this description of manufacture, which is so necessary to the welfare of the nation, should foreign resources be suddenly cut off by wars or other causes, and which might afford a most extensive and profitable employment to the agricultural interest. As a branch of national industry, it has been emphatically termed "the wealth of England." It is particularly indispensable to the wants of a climate like ours, whose wintry blasts are so piercing, and whose summer heats are so often succeeded by sudden and unhealthy changes to chilling winds and storms. A.

From the American Farmer.

HONEY.

Newburyport, Mass. May 20, 1823.

J. S. SKINNER, Esq.—"A lover of honey," in your paper, No. 9, vol. 5, says "there is a gentleman in the lower part of your native county, who knows much better how to take honey from bees than the German mentioned in your paper, No. 48, vol. 4, and with less expense than Blake's patent hives;" and goes on to state the process of taking off the top of the hive, &c. I confess I am not authorized to answer for your numerous patrons, but have the sanity to think a majority would prefer a hive like Mr. Blake's, that the top could be lifted like a chest cover, and the honey taken in a draw or box, that would be no disgrace to any table, if placed on it, to the method of knocking off the top of a hive, and breaking up a quantity of comb, as it must necessarily be broken; to say nothing of dropping the honey, and leaving the hive in a state of ruin, that would take the industrious little animals a long time to repair—even if the

extra expense of the hive was 50 cents—as it cannot exceed that, unless you have a lock, (which is an improvement) and would probably add 25 cents more. If your correspondent has recommended a better way, of course it will be adopted; on the other hand, if Blake's hive is not considered too expensive, this notice may help him to sell a right. B. P.

From the National Intelligencer.

COMPOSITION TO PRESERVE WOOD.

MR. GALES—It becomes important to have a simple composition, in the application of which, the durability of bridges constructed of wood will be extended for a long period of time without a roof; whereas, if left exposed to the weather, ten years is their estimated limit of duration. It well deserves the attention of the directors of the city bridge company, for, as the timbers are new, well seasoned, and have suffered no apparent decay, the mixture being now put on will be in time to prevent the operation of the rot.

I send you two receipts, one for the preservation of wood or timbers liable to be injured by the weather; and one for the roof of a house, to defend it not only from the weather, but also from fire, and I doubt not they will be both acceptable to many of your subscribers, among whom I am

ONE.

Composition for preserving weather-boarding, and all other work liable to be injured by the weather.

Lime, it is well known, however well burnt, will soon become slacked by exposure in the open air, or even when confined in a situation, if not remarkably dry, so as to crumble of itself into powder. This is what is called air-slacked lime, in contradistinction to that which is slacked in the usual way, by being mixed with water. For the purpose of making the present useful composition to preserve all sorts of wood works exposed to the vicissitudes of weather, take three parts of this air-slacked lime, two of wood ashes, and one of fine sand, pass them through a fine sieve, and add as much linseed oil to the composition as will bring it into a proper consistency of working with a painter's brush. As particular care must be taken to mix it carefully, it should be ground on a stone slab with a proper muller, in the same manner as painters grind their white lead, &c. But where these conveniences are not at hand, the ingredients may be mixed in a large pan and well beat up with a wooden spatula. Two coats of this composition being necessary, the first may be rather thin, but the second should be as thick as it can conveniently be worked.

This most excellent composition for preserving wood when exposed to the injuries of the weather, is highly preferable to the customary mode of laying on tar and ochre. It is indeed every way better calculated for the purpose; being totally impenetrable by water, and so far from being liable to injury by the action of the weather, or heat of the sun, that the latter, though such a powerful enemy to tarred and ochred palings, &c. even hardens and consequently increases the durability of the present proposed composition.

Another receipt for the roof of a house, to defend it from the weather and from fire.

Take one measure of fine sand, two measures of wood ashes well sifted, three of slacked lime

ound up with oil, laid on with a painter's brush, first coat thin, and second thick.

I painted on a board with this mixture, and it resists so strongly to the board, that it resists an iron tool, and put thick on a shingle resists the operation of fire. I used only a part of the mixture; what remains, continues in an iron pot; water has lain on the mixture for some time without penetrating the substance, which as hard as a stone.

The Boston Journal of Philosophy and the Arts.

The following notice of this new publication, extracted from an article in the Massachusetts Agricultural Repository and Journal, No 4, Vol. 1, signed J. L.—one of the editors.

"Not in any degree interfering with that of Professor Silliman, the Journal in question is intended to introduce to the American public, those articles in foreign publications devoted to Philosophy and the Arts, which may be thought most useful. We meet this stranger with the most hearty and cordial welcome. Every one who reads much, knows that it is impossible in the present state of our country, that the European scientific journals can all of them, or indeed any of them, be republished here. They cannot be imported without enormous expense, owing to the inexplicable policy of laying heavy duties on all works, without discriminating those which must have a limited circulation, from those which are read by the great mass. This work is intended to give us a selection from the European publications, of those articles which are peculiarly interesting to us and adapted to our condition and progress. The Journal is under the management of Dr. J. W. Webster, Dr. J. Ware, and Mr. D. Treadwell, and we cannot have a better pledge of the sound discretion which will be exercised in the selection, than the well merited reputation of its joint editors. We most earnestly hope it will receive that encouragement which the very attempt deserves, and which is due to the spirited efforts of these scholars, and without which, no scientific exertions can be long successful."

NEW ENGLAND FARMER.

SATURDAY, JULY 12, 1823.

Farmer's and Gardener's Remembrancer.

JULY.

INDIAN CORN.—Some farmers delay their hilling till haying, in order to husband time, calculating to hill their corn when the weather is such that haying cannot be attended to with profit. This, however, is not altogether a correct mode of proceeding, for the following among other reasons. 1st. Your corn suffers by this delay, and ten to one the weeds get such a start that your labor is much increased, and its good effects greatly diminished. 2dly. By delaying your third hoeing, or hilling too long, your hilling, haying and harvesting press on you all at a time, and you do nothing well, because you do every thing in a hurry. 3dly. When hilling is delayed till haying, you generally hoe your corn in wet weather, because such weather is unfit for haying. But if the soil is considerably wet, ploughing or hoeing it does but little good, and sometimes causes more harm than benefit. The weeds are not destroyed, the land is left in a heavy state, and so tight

that the roots of the corn cannot penetrate it, and spread as they otherwise would. You therefore need fine weather for hoeing as well as for haying. A little dampness, however, will be less injurious in the former than in the latter kind of business; and of course it may sometimes be proper to leave your hay-field for your corn-field. But if the ground is considerably wet, or there is a prospect of a "*wet spell*," you had better go with your boys, and the rest of your "*help*" to cutting bushes. Dr. Deane said, "other circumstances being equal, the wettest weather is best for destroying shrubs by cutting; because the sap vessels of the stumps will continue open the longer; there will be the greater discharge of sap through them, and the roots will be the more weakened."

"Bushes, which grow in clusters, as alder, and some other sorts, may be expeditiously pulled up by oxen; and this is an effectual way to subdue them. The expense of it, I suppose, will not be more than that of cutting them twice would amount to." The wetter the ground is the more easy it will be to pull up bushes.—But if you have no bushes which require cutting, and the weather is too wet for haying or hoeing, you may find a profitable amusement in

DIGGING AND DRAWING STONES, AND MAKING STONE WALL.—Stones can be dug out of the ground much easier when the ground is wet, than when dry. And now, before we forget it, we will state what the Farmers' Assistant says are the best modes of making stone walls.—"Dig a trench where the wall is to be made, to the depth of about eighteen inches; into this throw all the small and bad shaped stones, until the trench is filled; then on the top of these build the wall, in a mason-like manner, to the height of about five feet, and throw the earth dug out of the trench up against the wall on each side; and in this way it will stand for a length of time beyond the memory of man. If a trench be not dug in this manner, the next best method is to plough deep trenches close on each side of the wall, after it is built, and throw the earth thus ploughed up against the wall."

TURNIPS.—It is about time to think of raising turnips for feeding stock and other winter uses. They require a light sandy loam, made pretty rich and mellow. The seed may be sowed about the middle of July, but it is not necessary to be very precise as to the time. Dr. Deane observed that he had sown them the first week in August, and had a good crop. If sown so late, they generally escape insects, and though they may not grow quite so large, they will, commonly, be better for the table than those which are sowed earlier. They may be sowed broad cast, or in drills; and if the former way is chosen one pound of seed is the common allowance for an acre of land; but if the fly is to be provided for, the quantity of seed should be a little increased. The Farmers' Manual says, "To secure your turnip crop decidedly against the fly, steep your seed 12 or 24 hours before sowing, in fish or train oil; drain off the oil from the seed, and roll the seed in plaister; this will separate the seed from the glutinous adhesion of the oil, render the casts pure, and enrich your crop." It may be tried, but we doubt its efficacy. The cause does not seem to be adequate to produce the alleged effect; for the minute quantity of oil which might be attached to

or imbibed by so small an object as a turnip seed, could hardly, we believe, communicate any odor or flavor to a plant sprung from such seed, sufficient to preserve it from insects. But if fact says otherwise, philosophy may as well be silent. Experiments repeatedly made, and accurately noted, must, after all, be considered as the only sure basis of improvement.*

The seed, when sown broad cast, should be harrowed in with a short tined harrow, and it will be of service to roll the ground with a pretty heavy roller, to prevent the soil from being too loose, break the clods, and level the surface. It is said that top dressing of ashes, or soot strewed over the ground is a good preventive against the fly, and other insects, and it will at least quicken the growth of the plants, and the faster they grow the sooner they will be out of danger from the fly. Infusions of elder, wormwood and tobacco, sprinkled over the ground as soon as the plants appear, have likewise been recommended, but perhaps would be thought too troublesome for field cultivation. If, after all, the fly, drought or grasshoppers destroy the young plants, it will not cost much to harrow and sow the ground a second time, and those evils may thus, perhaps, be avoided.

Although some people will continue to raise turnips according to the broad cast method, yet there is no doubt but these roots may be grown to much greater advantage in drills or rows.—The following from the "Memoirs of the Board of Agriculture of New York," contains directions for raising turnips in the drill method, which have been tested by the experience and recommended by the writings of Mr. Feathers-tonhaugh, of Duaneburgh, N. Y. a celebrated practical and scientific agriculturist. "The soil being turned up in the fall, and exposed to the winter, is easily broken down in the spring, and by the first of June got into good tillage. Advantage being taken of the first settled weather, deep furrows, three feet apart, are opened, and well cleaned out with the expanding horse hoe.† Fresh dung well sodden down is carted into these furrows; some prefer to spread it at random on the surface, and rake it into the furrows. When the work is sufficiently ahead, these are covered with the plough, and become small ridges or ridgelets three feet apart.‡ By the time the field is dunged, and covered, the turnip drill, preceded by a light roller to flatten the ridgelets, is introduced. A steady hand will sow five acres in a day. When the crop gets into a strong rough leaf, the hoers are introduced to thin the plants, which are left about eight inches apart. These being suffered to fix themselves well in the soil, and their healthy leaves extending over the surface of the ridgelets, a light one horse plough then takes a slice from each side of the ridgelets, and throws it into the furrow. When this operation has killed the weeds, the expanding horse hoe is again introduced, which splits the soil in the furrow,

* Bordley's Husbandry tells us that "It is said to be a successful method of avoiding damage to young turnip plants by flies, to mix every two pounds of seed with a quarter of a pound of sulphur in fine powder, to stand ten or twelve hours; and then sow the seed." It might be well to try this receipt, but we doubt its efficacy, for the reasons before mentioned.

† A common horse plough will answer by being run back in the same furrow.

‡ The Farmers' Assistant says 27 inches.

and returns it to the ridgelets.* If weeds appear again this operation should be repeated, and it is better for the crop if it be repeated two or three times; for stirring the soil is the life of drill husbandry and row culture. It destroys successive crops of weeds, which otherwise would have remained in the soil; disturbs and destroys slugs and insects, and by producing more perfect tillage, permits new fibres to extend themselves in every direction, and opens the soil in the best way to the influence of the atmosphere."

Dr. Deane highly approved of the drill or row culture for turnips, and observed, "For two years past I have sown turnips in the drill way, in the poorest part of my garden, where a crop of pease had grown the same summer, and never had better turnips. They were sufficiently large for the table, though they grew so near together in the rows that the roots crowded each other, and were not sown earlier than about the tenth of August. The earth was hoed into ridges three feet apart, and a single channel seeded on each of the ridges. This is the more observable, as I have often sown turnips in the broadcast way, on the same spot, and at the usual time of sowing fall turnips, and never before raised any that were fit to eat. I have also for several years raised turnips in the field in the drill way. The ridges were raised in May with the cultivator, about three feet apart. They were kept clear from weeds till about the last of July, by the cultivator and the hand hoe, and then sown in single drills. Nothing more was necessary afterwards, except thinning and once hoeing. The crops were so much better than I have obtained from broad cast sowing, that I am induced to persist in and recommend the method."

DESTROY THISTLES.—A writer in our paper of last week, page 390, with the signature "Middlesex," is solicitous for information relative to the most successful mode of exterminating the Canada Thistle. The following we have known put in practice with perfect success. Let the thistles alone till they are in full bloom, and then cut them with a scythe. If they are cut when young, they produce fresh shoots, but if mown just before the seed is formed, the stem contains a hollow by which the dews and rain water descend into the heart of the plant and it soon dies. If, however, you cannot find leisure to mow them till the seed is formed, you may even then cut them down, and as soon as they have dried a little in the sun, rake them into heaps and burn them. It is possible that a few may spring up the next season, but two or three cuttings will entirely destroy them. It is said to be best to cut them in wet weather, as the rain will then sooner fill the stalk and cause the plant to rot immediately.

* A common horse plough would answer this purpose, but with less convenience and expedition.

NEW AGRICULTURAL IMPLEMENTS.

The New York Statesman of the 7th inst. contains the following account of two agricultural machines, the one for mowing and the other for raking hay.

"The instrument for cutting the grass consists of a circular plate about five feet and a half in diameter, the whole circumference of which is sharpened like a common scythe. This

is suspended under a car resembling a common cart, by a perpendicular shaft, the lower end of which rests upon a runner or gauge, and on the upper end of which is machinery receiving its motion from the wheel of the carriage, which is furnished with cogs for that purpose. The wheels are so multiplied, that the ordinary walk of the two horses by which the carriage is drawn gives to the scythe a very rapid horizontal motion. The machinery is placed so far towards the right side of the carriage, that the horses walk just at the edge of the grass. On the car is a seat for the driver, and a chest for the whet-stone and other implements needed in the process. A *self-sharpener* is occasionally used in putting the scythe in order.

"The patent horse-rake of Messrs. Pennock & Pierce, if possible, is a more ingenious and curious instrument than the scythe. It is very simple in its construction, and every one on seeing it is surprised that it was not sooner invented. The head of this rake is about ten feet long, and the teeth, which are about three feet in length, are inserted in both sides horizontally. To the head, at suitable distances, the traces of the horse are fastened, and behind is a handle by which the machinery is directed. When the rake is filled with hay, it is made to revolve by a slight effort of the person tending it, and the alternate teeth are filled. So easy and quick is the process of clearing and shifting its sides, that the horse keeps upon a fast walk across the field without stopping. In this way, the hay is rapidly raked into wind-rows, which by turning the rake are rolled into heaps. By means of this improvement, a man and one horse will rake twenty acres in a day. Mr. Peirce assured us that he could collect it as fast as several hands could cart it from an adjacent field to the barn. With some slight modifications it is capable of being applied to the collection of grain into sheaves. It is particularly useful when a shower is seen rising, and the farmer is in haste to secure his hay or grain. The whole expense of this instrument, including the patent and the right to use it forever, is twelve dollars."

These machines have been recommended by the certificates of Dr. Mitchell, and several other gentlemen of science and respectability.

From the Essex Register.

CELEBRATION AT SALEM, FOURTH JULY.

What gave peculiar novelty to the performances in the Meeting-House, on Friday last, was the novel, interesting and candid remarks of the venerable Col. PICKERING, preparatory to the reading of the Declaration of Independence. The Col. commenced by stating, that he had acceded to the call of his fellow-citizens to read the Declaration of Independence, in order that he might lay before them some interesting information on the subject, in his possession. He first commented on the propriety of anniversary celebrations, and their early origin with the feast of the passover observed by the Jews, in commemoration of the deliverance of their offspring from that destruction which overwhelmed the children of their oppressors. He then gave a concise statement of the motives which led to that declaration, and the measures that were taken first to avert its necessity, and next to prepare for its hearty adoption and support.—That petitions and remonstrances were exhaus-

ted, without producing any suspension of the determination of the arbitrary council of England, to "bind us in all cases whatsoever, without our consent." That these, though unavailing at St. James, had their effect at home. That then the public mind was gradually prepared for this decisive measure, and foreign auxiliaries sought. That no foreign state was willing to aid us, unless with the view to lessen the power of Great Britain, and that therefore every step short of Independence, would have precluded foreign assistance. The Col. then proceeded to give an account of the manner in which this subject was introduced into Congress: He stated that there was no man living able to give so good an account of it as the venerable JOHN ADAMS; that he had written to him in the last August on the subject, and he now gave the facts obtained from him. The motion which produced the Declaration, was made on the 10th of June, 1776, by Richard Henry Lee, from Virginia, the largest of the Thirteen United Colonies, who was authorised to make it by the votes of his constituents, the Assembly of Virginia. Mr. Adams seconded the motion, Massachusetts being at that time the second state.—The Col. here alluded to the ability and zeal of President Adams in carrying through this measure. He observed of him, that he possessed that 'BOLD AND DARING SPIRIT,' without which no revolution could be successfully accomplished. A committee of five was appointed on the subject, consisting of Mr. JEFFERSON, Mr. ADAMS, Dr. FRANKLIN, Mr. SHERMAN, and Mr. LIVINGSTON. Mr. Jefferson, though the youngest on the committee, was chairman, he having one vote more than Mr. Adams. That Mr. Jefferson had come into Congress with great reputation as a writer—and although he was a silent member of that body, yet he was most useful on committees, and felicitous in his writings. That Mr. Adams had made use of every exertion to procure votes for Mr. Jefferson, in order to place him at the head of the committee. That the committee met and appointed Mr. Jefferson and Mr. Adams a sub-committee. That Mr. Jefferson urged on Mr. Adams to write the Declaration, and Mr. Adams urged Mr. J. to do it. That Mr. Jefferson at last consented, and the next day submitted the original draft, as it was presented to Congress. That Mr. Adams thought the only objectionable part of it was that in which Geo. III. was styled a *tyrant*—that he considered that as too personal—that he only considered him such officially, and that he was deceived and misled by his Cabinet. He did not, however, state any objection to Mr. J. as it was afterwards to be submitted to the whole committee, and the feelings and temper of the people were fully up to the tone of the declaration. That he thought some of the most beautiful passages were afterwards stricken out by Congress, particularly that in which it was enumerated as one of the evils of our Colonial state, that the Parliament had refused to allow the colonies to prohibit the importation of slaves, and had thus entailed upon them the evils of a slave population. The sub-committee afterwards reported to the committee, who did not suggest a single alteration or amendment. The committee then reported the Declaration to Congress on the 1st of July, 1776; it was discussed and amended on the 2d, 3d, and 4th of July, and adopted on the latter day, about a quarter of the reported De-

eration having been stricken out. Mr. Pickering differed from Mr. Adams in opinion, and thought the Declaration improved by the amendments. In this opinion of Col. Pickering's we most readily concur, as we consider nearly every alteration made by Congress, with the exception of those in relation to slavery, as a fatal amendment to that instrument. Most of the ideas in the Declaration had been repeatedly maintained in previous papers, especially a Declaration of Rights in Massachusetts, issued in a lucid interval by James Otis, and tuned and polished by Samuel Adams. That great credit, however, was due to Mr. Jefferson for the ability of the compilation, and we heartily accord the same degree of credit to the candor of Col. Pickering.

FOR THE NEW ENGLAND FARMER.

MR. EDITOR—I have never been a believer that it was to be found a mean of curing Hay to the extent which has been advocated. But I have been convinced, and several years have confirmed me in the practice, that the application of a peck of salt or more a ton of hay is very beneficial.

1st. It tends to check an undue degree of fermentation when the hay is not quite made enough.

2d. I have found the hay I have salted less apt to break and lose its head and most nutritive parts, particularly clover.

3d. It has come from the mow in the spring much more green and saleable.

4th. Much less dust or dry mould has appeared than has been the case in all other large parcels of hay where no salt has been used.

The writer is now applying it in the manner herein stated; but more particularly to his clover. If it does well in this neighborhood, how much better must it do where salt is necessary to the thrift of cattle, and adds, or want of a saline atmosphere, so much to the value of the manure of the stock.

W. W.
Dorchester, July, 1823.

FOREIGN.

PROGRESS OF THE FRENCH IN SPAIN.

Paris dates to the 21st, and Portuguese to the 30th of May, have been received. The Paris accounts state that the French in Spain are advancing to Madrid with scarcely a show of opposition. On the 15th of May, they tell us, the Head Quarters of the Duke D'Angouleme were at Aranda, which is about 75 miles north from Madrid. Gen. Obert was at Almazan, about 65 miles north west from Madrid. This commander, they say, is perfectly well received every where, and communicates with the Royalist Gen. Bessieres, who has taken 200 men, the same number of muskets, and four cannon from Ballasteros. The latter is retiring on Valencia, and suffers losses by desertions. On the 11th, Marshall Oudinot's vanguard proceeded from Valladolid to the Douro, where as well as at all other places, he was received with lively enthusiasm. Gen. Morillo's army, according to these accounts, was reduced to about 170 soldiers. Marshall Momey's troops were full of ardor. Momey's corps is little less than annihilated; and the Baron D. Errolles is in pursuit of him. The Baron is of opinion that if Mina is vigorously pursued, his destruction may be accomplished in eight or ten days.

The above is the substance of Paris accounts, by which, after making suitable allowance for "false facts," we learn no more than that on or about the middle of May, the French were proceeding onward, without encountering much opposition. In this there is nothing remarkable, because neither party anticipated much serious fighting till the French had arrived at Madrid, when the Spaniards were to "cry havoc, and let slip the dogs of war!" The Paris dates do not come down to the 20th May, about which time, according to news received by Capt. Tunison, a great battle was fought, and the French were defeated. Neither

do we hear any thing more of Gen. Mina's masterly manoeuvre in gaining the rear of Momey's army. Indeed, the only thing certain about these reports is that no reliance is to be placed on them, and we must wait till Time, the Great Teacher, shall condescend to substitute reality for a mass of conjecture, the only food for curiosity with which, at present, he condescends to gratify us.

From Portugal.—An arrival at Portsmouth from St. Ubes, has brought Portuguese accounts to the 30th of May. These announce a revolt in Portugal against the constitutional system. They say that a certain Brig. Gen. Sampayo, with his regiment, revolted in the neighborhood of Lisbon, wrote a letter to the Brigadier Governor of arms, announcing his intention to bid "farewell to anarchy," and that the infant Don Miguel, one of the sprigs of royalty, had "quitted the paternal roof, and gone to join himself with this handful of deluded men." They state, however, that the "government has taken the most efficient means to stop the progress of the disorganizing faction. The troops continue true to their oaths, and obedient to their general, in whom they have the utmost confidence." Other accounts state that the Portuguese ministers had resigned. Indeed the reports are so contradictory from Portugal, as well as Spain, that they do not present a foundation on which a yankee of any prudence would hazard a guess; and no one can say either what is or what is to be in Spain or Portugal. The usual channels of intelligence seem to be filled altogether with such false and contradictory reports, that they are no more to be regarded than the tattle of a superannuated gossip, who dreams with her eyes open, says every thing "which comes uppermost," and believes every thing she says, because she has said it.

DOMESTIC.

The Fourth of July.—This National Festival has been generally celebrated, in various parts of the Union, with the customary demonstrations of joy and festivity. An account of the Processions, Orations, Odes, Toasts, &c. &c. indicative of the sentiments and feelings which inspired the votaries of Independence, would fill all our columns, and still much that is memorable would be left untold. We must therefore refer our readers to other sources for details on this subject, and merely remark that judging from what we have seen and heard, we are led to conclude that the Festival of Freedom was never celebrated in a manner more worthy of the events it was intended to commemorate, or the principles it was designed to inculcate and hold in perpetual remembrance.

Fatal Accident.—The exhibition of fire works at Salem, on the evening of the 4th inst. was attended with a very melancholy event. A chest placed under the stage, containing about 300 rockets, was accidentally set fire to by a rocket, which having been thrown from the stage, glanced towards the chest, and communicated a blaze to the rockets within, which took different directions. Many persons, principally boys, who had placed themselves very near the stage, were injured by the explosion which followed, and some fatally. Three boys have since died of the wounds received by this dreadful accident. Others were wounded, but it is thought that they will recover.

Caution to Parents.—The New York Commercial Advertiser states that an infant of about nine months was left by its parents in the care of its sister about seven years old, who gave it laudanum to quiet it, and its death in a few hours was the consequence.

On Tuesday, June 10th, before the Horticultural Inspection Committee, in New York, were exhibited two fine Cauliflowers, measuring 26 inches; six summer lettuces of a fine new kind, the largest of which weighed 2 lbs. 6 1-2 oz.; four fine compact lettuces of a new kind, and a fine plant in bloom of *White Moss Rose*, supposed to be the first that has flowered in this country.

John McLean, late Commissioner of the General Land Office, has been appointed, by the President of the United States, to be Postmaster General, vice R. J. Meigs, resigned.

Geo. Graham is appointed by the President to be Commissioner of the General Land Office, vice John McLean resigned.

The New York Commercial Advertiser states that Mr. J. Wilson, of this city, has been robbed of his pocket book, containing nearly 2000 dollars, between Philadelphia and New York.

The Providence Journal states that seven girls, in the factory of Mess. Greene, Tillinghast, & Co. near Wickford, from the 22d to the 28th ult. both days included, on 14 looms, wove 3910 yards of sheeting.

Erratum.—In our paper of June 28, page 379, in the article with the signature "Herdsmen," for meal-bags, read meal boxes.

PRICES OF COUNTRY PRODUCE, &c.

[Revised and corrected every Friday.]

		FROM	TO
		D. C.	D. C.
ASHES, pot, 1st qual.	ton.	140 00	143 00
" pearl do.		150 00	153 00
BEANS, white	bush	1 00	1 10
BEEF, mess, 100 cwt.	lhl.	9 00	9 50
" No 1,		8 00	8 50
" No 2,		6 75	7 00
BUTTER, inspect. 1st qual. . .	lb.	11	12
" 2d qual.		9	10
small kegs, family,		13	14
CHEESE, new milk		7	8
FLAX		8	9
FLAX SEED	bush	25	30
FLOUR, Baltimore, superfine, .	bbl.	7 75	7 87
Genesee		7 62	7 87
Rye, best		4 50	4 75
GRAIN, Rye	bush	70	73
Corn		58	60
Barley		63	70
Oats		40	42
HOGS' LARD, 1st sort	lb.	9	10
HOPS, No 1,		8	12
LIME,	cask	1 25	1 37
OIL, Linseed, American	gal.	65	00
PLASTER PARIS	ton.	3 00	3 50
PORK, Navy Mess	bbl.	12 00	12 50
Bone Middlings		14 00	14 50
Cargo, No 1,		12 00	12 50
Cargo, No 2,		11 00	11 50
SEEDS, Herd's Grass	bush	2 00	2 25
Clover	lb.	8	9
WOOL, Merino, full blood, washed		55	60
do do unwashed		46	50
do 3-4 washed		50	55
do 1-2 do		45	47
Native		37	40
Pulled, Lamb's, 1st sort . . .		55	60
do Spinning, 1st sort		50	55

PROVISION MARKET.

BEEF, best pieces	lb.	8	10
PORK, fresh		7	8
VEAL,		6	8
LAMB, per quarter		37	50
POULTRY,		10	12
BUTTER, keg & tub		13	14
lump, best		16	18
EGGS,	doz.	14	15
MEAL, Rye,	bush	75	80
Indian,		75	
POTATOES,		45	47
CIDER, liquor,	bbl.	1 50	2 25
HAY, best,	ton.	18 00	22 00

TERMS OF THE FARMER.

Published every Saturday, at THREE DOLLARS per annum, payable at the end of the year—but those who pay within sixty days from the time of subscribing will be entitled to a deduction of FIFTY CENTS.

No paper will be discontinued (unless at the discretion of the Publisher) until arrearages are paid.

Complete files from the commencement of the paper in August can be furnished.

Agents who procure seven subscribers, and become responsible for the payment, will be entitled to a copy gratis, and in the same proportion for a larger number.

The following ODE, written by a member of the Washington Society, in Boston, was sung at the late celebration of Independence, by Mr. Benj. Brigham. We think that the birth day of our National Freedom, fruitful as it has been, and we hope ever will be, in similar productions, has rarely exhibited any thing of the kind of equal excellence.

ODE.

AIR—"To Liberty's enraptur'd sight."

When first with ray divinely bright,
Forth beam'd fair freedom's western star,
O'er ocean, wave, and mountain height,
Its heavenly radiance gleam'd afar;
Admiring nations gaz'd with awe.
And monarchs veil'd their dazzled eyes;
Earth, sea and sky enraptur'd saw,
And bade their swelling anthem rise.
Star of the brave, the great and free!
Hail! glorious star of Liberty!

Then rousing from his rocky rest,
Stern Independence grasp'd his spear,
And toss'd on high his haughty crest,
And bade his glittering banner rear.
Earth trembled 'neath his giant tread;
Shook, pale Oppression's gloomy hold;
The red eyed Despot quak'd with dread,
As far his lofty chorus roll'd.
Where'er thou dawnest all are free!
Hail! glorious star of Liberty.

"Columbia's Sons arise!" he cried,
"To glory, fame and honor rise!"
Each cavern'd rock and hill replied,
In echoes to the list'ning skies:
They rose in virtue's armor bright,
Fierce on their tyrant foes they sprung
While cheering on the patriot fight,
On high the heavenly minstrels sung;
The star of Freedom shines o'er thee!
Columbia thine is Liberty!

As rolls the torrent to the main,
Resistless from the mountain side,
Resolv'd to rend th' Oppressor's chain,
They burst upon his banner'd pride:
With firmer step each Warrior trode;
A surer mark each weapon found;
Each breast with holier fervor glow'd;
As proudly rose the thrilling sound.
Bright harbinger of victory!
Hail! radiant Star of Liberty!

Thus, on to glorious fame they rush'd:
With vict'ry's wreath their brows were crown'd;
And War's dread tempest, now, is hush'd,
Now, Peace, mild beaming, smiles around.
Adown the peaceful vale, no more
The cannon's voice of carnage tells;
But far along our length'ning shore,
Th' inspiring note of triumph swells.
All hail! Columbia, great and free,
Blest home of Peace and Liberty.

And while our bosoms bound with joy,
Forget not we the mighty dead;
Let mem'ry breathe a mingled sigh,
For those who for our freedom bled.
Pledge deep to them the sparkling bowl;
Let their high praise in song arise;
Wake the far echoes of the pole,
In strains aspiring reach the skies.
Brave patriot band, we raise to thee,
Th' exulting voice of Liberty!

From the National Intelligencer.

ROTARY PRINTING.

In one of the letters from London concerning Perkins' improvements on the Steam Engine, there is an incidental mention of an invention "for printing calicoes, by means of an engraved cylinder, which passing over the cloth, performs the work that was formerly done by manual labour."

It is so singular as to be worth remark, that, more than twelve months ago, Mr. Peter Force, printer and bookseller, of this city, disclosed to the writer of this the principle of an invention precisely such as that now ascribed to Mr. Perkins. Mr. Force was at that time engaged in having a model made, and perfecting his invention—which work, it appears, he soon after accomplished: for we discover, from the official printed list of patents issued during the year 1822, that on the 22d day of August last, Mr. Force obtained a patent for "an improvement in the machines for printing paper, cloths, books, &c." We yesterday saw the specification of this patent, wherein the scope of the invention is thus prefixed to the description of it:

There are six different machines for completing the improved paper hangings, calicoes, letter-press printing, &c.

1st. For laying on the ground work all of one colour.

2d. For do. of different colours.

3d. For laying on all the different colours, at the same time where they are separate.

4th. For laying on all the different colours at the same time where they are interspersed.

5th. For laying on all the different colours at the same process, where they are intermixed.

6th. For printing books, &c. both sides of the paper, &c. at once.

We do not mean to detract an iota from the merits of Mr. Perkins' invention, whatever they may be valued at, much less from his universally-acknowledged skill in Mechanism. It is no more than just, however, that this useful invention of our townsman should be made known, to the end that he lose neither the merit or profit of what is undoubtedly his original invention.

NEW ENGLAND AND VIRGINIA.

Extracts from the Journal of a Virginia traveller in New England.

In the excursion from which I have just returned, I had an opportunity of looking more closely than I had done before into the domestic and agricultural economy of the New England farmers. And I have been astonished to observe how much less house-keeping and the cultivation of the soil costs here, than they do among us. A family here, which employs one house servant, lives full as much at ease, as one in our part of the country that employs four—with only this special exception, that, in Virginia, the mistress has a great deal the most trouble. Consider the difference, as to expense, between employing four unproductive hands and only one!

I have before remarked that the farms here are small. They are generally cultivated by the proprietor and his sons. And if the whole product is less than on the large plantations in Virginia, the surplus is proportionably much greater; and the expense of clothing incomparably less. I have no doubt but that the nett profits of farming in New England are greater than in Virginia. But this will scarcely be be-

lieved here. If it is heard that a man owns a thousand acres of land, and fifty negroes, it is imagined that there is no end to his wealth.—But it is not considered that out of fifty slaves, on account of old age, childhood, disease, and other causes, scarcely ten or twelve able bodied laborers can be found, whose services are to be regularly depended on. Now if the planter grows corn enough to feed all his dependents, and tobacco sufficient to fill fifteen or eighteen hogsheads, he is thought to do exceedingly well. This tobacco, at an average price, will produce from one to two thousand dollars. This is all the planter has to pay taxes, blacksmith's and doctor's bills, the expense of clothing, and every thing else in the way of family expenditure, where there are perhaps sixty persons.—The truth is, that many planters in Virginia begin to feel that the present mode of cultivating the soil is so expensive, and the price of produce so low, that a change will soon become necessary and inevitable. Free labor costs less and produces more than that of slaves. Hence while Virginians are nominally rich, they are actually poor; and will be so until some one shall be wise enough to devise a plan for changing the state of things among us. When shall it once be!

An Irishman who had never fired a gun in his life, took it into his head to go a shooting. I was not long before he saw a little wood pecker engaged in perforating a small cherry tree. Pat crept slowly as far as he durst without alarming the bird, and after making two or three circumambulations around the tree, as the little feathered mechanic performed a similar revolution round its trunk, he tho't he had at last got a chance for a shot; so shutting both eyes fast he blazed away. The bird, more scared than hurt by the attack, took to his wings, while Pat sure as he could be that he had bro't down his game, commenced searching for it among the weeds at the root of the tree. As he was thus engaged, a frog started up before him and began hopping around the tree. Pat in an ecstasy of joy at having found as he supposed the object of his search, soon seized poor croaker, and while he eyed his lantern jaws and freckled skin with somewhat of an amazement, exclaimed, "Arrah, now, but sure you were a prett' bird before I shot all the feathers off you."

A gentleman mistaking a very small lady who was picking her way over a dirty channel, for a very young one, snatched her up in his arms and landed her in safety on the other side, where she indignantly turned up a face, expressive of the anger of fifty winters, and demanded why he dared to take such a liberty?—"Oh! I humbly beg your pardon, said the gentleman, I have only one amend to make"—and he again caught her up and placed her where he had first found her.

A distinguished member of the New-York convention of 1821, after ending an elaborate speech and supposing his chair to be behind him (which unfortunately was not the fact) while in the act of seating himself, came to the floor rather abruptly. Another member, not noticing the mistake, rose immediately to reply to the speech but was silenced by a member calling out, "order, order, there's another gentleman on the floor already!"

NEW ENGLAND FARMER.

PUBLISHED BY THOMAS W. SHEPARD ROGERS' BUILDINGS, CONGRESS STREET, (FOURTH DOOR FROM STATE STREET.)

VOL. I.

BOSTON, SATURDAY, JULY 19, 1823.

No. 51.

From the second volume of Memoirs of the Board of Agriculture of the State of New York.

OBSERVATIONS

On the most economical method, by which farmers in this country, may supply themselves with a sufficient supply of succulent feed, for their stock in the winter season.

[By LEVI MCKEAN, of Dutchess.]

There is nothing in which I consider the American farmer to be so far behind the best European cultivator, as in the suitable provision of green or succulent food, for his stock in winter. It is to this deficiency, that we must ascribe the loss that we so often hear farmers complain of, when they have attempted to make calculations on the expense of fattening of beef and mutton, in the winter, on artificial feed; or, the expense of keeping dairies, from November to May, all of which time cows should have some rich feed, other than dry hay, or they cannot afford any profit to the farmer.

For my part, I have long ago learnt from experience, that to fatten beef or mutton; or keep a dairy; or to keep ewes to rear lambs for the market, on corn, or other farinaceous feed, without green or succulent food, must always disappoint the hopes of every farmer, who will like the trouble to count the cost of any experiment he may make in that way; and unless the farmers of this country, can succeed in finding some green article or root, to feed with his hay and corn, he can never make a calculation of profit on his winter's feeding.

This subject has long occupied the attention of all those farmers, who calculate the cost of the article they send to market, and has led them, with much solicitude, to endeavor to find some article to cultivate for this purpose, without any one, as I believe, having yet been able to come to any practical conclusion, as to what article was best adapted to our climate and soil, or whether any article can be found to answer the purpose.

Without system, no business can succeed, and a systematic farmer should always calculate on results, that would prove as certain as possible, especially in this country, where, if he fails in the growth of a crop of the article on which he has made his principal dependence, for his winter feed, he cannot supply the lack by purchase, without giving so extravagant a price, that his stock will hardly, in the spring, pay for the wintering: or he must force his stock into market, lean, in the fall, when for the want of regular fairs for the sale of stock, which we much want in this country, he must generally sell at such prices as to sacrifice his summer's feeding.

The above considerations, have rested on my mind with such weight, that for several years I have been led to make experiments to supply myself with the necessary store of feed, none of which have been satisfactory, either by reason of the great labor that most of the artificial crops require, at seasons when all the labor of the country is necessarily otherwise engaged; or by reason of the uncertainty of the crop experimented; or its unfitness, when produced, for feed in this climate.

Every man who has read English books on husbandry, is at first struck with the important use they make of their turnip crops in that country, and eagerly engages in the cultivation of an article, the general growth of which has formed an important era in the annals of agriculture in that country. But alas, how often has the American farmer been disappointed in the result of such experiments as have been most judiciously made, by reason of the difference of soil and climate.

The season of sowing field turnips for stock, in this climate, should be from the 10th to the 15th of July, which is in the very midst of our harvest, and is a very hurrying season, when labor, is not only very high, but difficult to be obtained. But notwithstanding these difficulties, some years ago I followed a good field of about eight acres, and sowed it with the different kinds of turnip seed that are now most approved of in England, all of which came up well, and progressed with great promise, until the roots were of the size of a walnut, when the grasshoppers vent into my turnips, and entirely eat them up.

The next year I did not sow any, but in the year 1817, I sowed a very large field, that did well as to growth, but when it became fall, they had to be drawn and housed, or put in pie, which was a great labor; and in the winter, when they were to be fed to my sheep, they were to be unhoused, cut and fed in troughs: and long before spring, when they were most wanted; they became peros and light, and in fact, were a very expensive feed for my sheep, in proportion to their value as an article of food. From which I then concluded, that even when the common turnip grows well, they are not a profitable article for feeding, unless we could feed them on the ground, as is the practice in England; but which, from the severity of our winters, we cannot do. I have since several times tried the common turnip, but without profit, or any other satisfaction than was derived from the above experiments.

I have also, for the last four years, raised the *ruta baga* with some success, and have used them as a feed for every description of stock, with considerable satisfaction, especially after mid-winter, before which time, they do not appear to be properly ripened for use. But there is a great deal of labor about this crop, that must also be done in a very hurrying season of the year. That the result of all my experiments have convinced me, that in this country, where every thing is so dissimilar from that of England, that no English theory will do for the American farmer.

In England, the chief expense of the farmer's crop, consists in tythes, direct and assessed taxes and rent. The cost of labour is nominal, in comparison with what it is in this country. While here, thank God, there is no tythe, the rent is small, and the taxes are nominal; and labor is every thing. Therefore, in England, it becomes the interest of the farmer to use every means in his power, to obtain the greatest possible products from a given quantity of land, by laying out much labor on it. But in this country, it is the interest of the farmer, so

to husband his land, that he ensure the greatest possible returns for his labor. On this ground of calculation, I have finally concluded, after this year, (in which I have laid out considerable, on preparation for turnips, that owing to drought, have entirely failed,) to give up my turnip and potatoe crops; for all the objections that lie against the one, are equally applicable to the other, excepting that the potatoe is the best feed, when produced, but the expense of producing a crop of potatoes is very great. And while I have come to this conclusion, I must confess I have been at a loss to find a crop to substitute for them.

It has so happened, that whenever I have resided in cities, it has been as a boarder, and not as an housekeeper; and although I had often seen the *Jerusalem Artichoke*, (*Helianthus Tuberosus*.) in markets, I had never eaten them, or known any thing of the manner by which they were produced and in fact, I had never given any attention to the article, until the last spring, when, being in a neighbor's house, I observed a child to come in with a present of a basket of artichokes, which I noticed were of a size and form similar to the sweet potatoe of the southern states. But still I made no enquiry about them at this time; but after I returned to my own house, I recollected the basket of artichokes, and determined to enquire where and how they grew, and what use was made of them? when I learnt, that they were grown in a garden in this village, (Poughkeepsie,) and that they were a very hardy and productive vegetable. I also learnt, that when once planted, they required no further cultivation, and that they had no enemies during their growth but hogs, who were very fond of them. This was very satisfactory information, as I am well persuaded, there are no animals that pursue nutritious food with more attention to its fitness to support animal life, than hogs: and I concluded at once, that this root might be useful to the farmers of this country, as a substitute for potatoes and turnips.

On the above information, I went to examine the garden where this article had grown, and found, that a small spot of ground, not exceeding 20 by 3 feet, must have produced several bushels of artichokes, which I soon persuaded myself must be profitable as a crop, and was determined to procure some of the seed: and in the mean time, I endeavored to collect all the information of the growth and produce of artichokes in my power.

It is proper to observe, that an English book on agriculture, can never be read with any certainty, as to the results of any experiments which they pretend to detail; as their most experienced writers do not describe any certain quantity, either of land or products, by any certain denomination of measure; and although some of their writers pretend to understand something about a *statute acre*, while describing the results of their experiments, and speak of their products as being measured in the Winchester bushel, yet in the next page, or perhaps in the next paragraph, you will find them speaking of acres of seven yards to the perch, and other measures

that no one can comprehend; and of estimating their crops of esculent and tuberous roots, sometimes as being measured by the *Winchester bushel*, and in other instances estimating them *ninety pounds to the bushel*; and at other times they are measured by *barrels or loads*, the size of which no one can conjecture. Therefore, in our inquiries, we cannot say with certainty, what capacity of measure is meant by those who relate the results of experiments, that have been made in that country, either as to the ground occupied, or the crop produced. Therefore, in order to come to any satisfactory result, in my inquiries relative to the comparative value of artichokes, as a crop, I have concluded that the land planted with potatoes, (with which I shall compare this crop,) must have been measured with the same instrument that the acre was, which was planted with artichokes; and that the same measure was used, to ascertain the quantity of each crop.

Mr. Peters published his book entitled "*Winter Riches*," as long ago as 1772, in which he speaks in very high terms of artichokes, as a crop to feed all kinds of stock on; and expresses his astonishment, that they are not more grown, and that they are held in such low esteem, even for human sustenance.

He asserts, that he has raised from one acre of land, from 70 to 80 tons; and that he is of opinion, that 326 tons may be raised from seven acres; from which it will appear, that if Mr. Peters had only 70 tons, he must have had 2,413 bushels of artichokes, at 65 pounds to the bushel, (which is the most that a bushel of the best potatoes can be made to weigh;) but if he had 80 tons, then his acre of artichokes produced him the prodigious quantity of 2,755 bushels, of the same weight.

From the above example, it will be seen, that Mr. Peters did not exceed probability, in expecting 326 tons from seven acres, when planted for an ordinary crop, which would be 13,646 bushels of artichokes.

Another English writer estimates an ordinary crop of artichokes to be equal to 120 Winchester bushels per acre, when planted, without the expense of manure. He also considers this crop to possess great merit, from its certainty upon any soil, and its not requiring manure, and being proof against frost.

I shall now endeavor to compare this crop, as to its value, with potatoes.

Arthur Young has given us several courses of experiments, made by himself, on a good soil, with different sorts of potatoes, one of which produced 120 bushels, without manure, and the rest, that were highly manured, with different sorts of dressing, and at great expense, produced from 140 to 650 bushels to the acre. Those producing the least crop, were manured with 30 loads of yard compost, and those producing the most, were two lots which yielded exactly alike, one parcel being manured with 6 loads of night soil, and the other with 10 loads of bones. And in another course of experiments, probably made the next year, on the same ground, with the same sorts of potatoes, and the same kinds and quantity of manure; he obtained, without manure, 140 bushels; with the yard compost, 140 bushels; from the night soil, 500 bushels; and from the bone manure, 610. And two other experiments, in different parts of England, have given results from the same kind of soil;

one acre, without manure, 130 bushels; one acre, 210 bushels, manured with wood ashes, which was the smallest crop with manure; and the largest crop, manured with 53 loads of farm yard dung, was 400 bushels.

The above experiments, having been made by the best farmers in England, or perhaps in the world, it will be observed, that the above products in artichokes, may be compared with them, to very great advantage.

Therefore, having obtained the above intelligence, I sent to Grant Thorburn for a bushel of artichokes, for seed, in order to make an experiment of their growth in this country. He sent me a peck, saying that he had only sent that quantity, as he did not know that I should approve of the price, which was \$5 per bushel. This seed I received the 6th of May, and immediately proceeded to plant it, on a soil in moderate tilth for wheat.

This peck of seed, I cut as small as was proper, in order to make it go as far as possible in planting. And while I was superintending the planting of this seed, the boy, who assisted me, observed, that there were some artichokes growing on a certain place on my farm, which, when examined, I found to be true, for I found a poor exposed space of ground (not larger than a common breakfast table) covered with artichokes, from which I dug about five pecks of fine large tubes, which, notwithstanding the tops were grown more than a foot high, I planted with the others. And although they were planted quite too late, I proposed, on some future occasion, to publish the result of this experiment. At this time, they looked very fine, and the ground now appears to be full of large roots.

My present opinion, from all I have seen and heard of artichokes, is, that they are the best suited for cultivation, in this climate, — for hogs, sheep, and dairies, of any article that we have yet tried.

Since last spring, I have examined several where they are growing wild, and find that they every where yield a bountiful increase, more than could possibly be expected from potatoes or turnips, or any other article growing on the same soil, and under the same circumstances, and every where indicate, that if cultivated and manured in the same manner that other crops are, the article would maintain the same superiority it does in a state of nature.

I have found artichokes growing in hedge rows, and among shrubbery in the borders of gardens, to very great perfection, where they were perfectly shaded, and apparently overrun with shrubs and weeds, and yet, on examining the roots, they were abundant, and larger than common potatoes, from which I concluded, they would even grow to some perfection in woodlands, where the soil was soft and mulchy.

As to the best method of culture, I cannot say much, as I have no experience, and can only speak from the conclusion I have drawn from observing the natural habits of the plant: from which I would, however, venture to recommend the following course of cultivation, which may be tried on any kind of soil, with great certainty of a good return, in proportion to the quality of the soil, or its improvements. But to obtain the best return, I would choose a field of a size proportioned to the amount of green food I might want for my winter's feeding, and of a pretty good soil. If otherwise convenient, take

up some orchard ground, on account of the benefit that I am persuaded this crop would be to the trees.

The ground should be ploughed and manured, and then drilled in the manner that is usually done for potatoes, and about the same quantity of seed planted, at the same distance in the rows. In the fall, the farmer should take up such a portion of the tubes as he would probably want for his winter feeding, which will be done cheapest with the plough. The remainder of his crop may be left, to be taken up early in the spring, as there is no way in which they can be so well preserved as to let them remain in the ground during the winter.

The tubes that are taken up in the fall, should be housed in the same manner that potatoes usually are, altho they are not so liable to injury by frost, as either potatoes or the ruta baga.

The next spring, when all the crop has been taken off the land, the ground should be well and deeply ploughed, as early as possible, which is all the cultivation that will again be wanting to secure the most abundant crop. And when the ground is to be appropriated to some other course of crops, it will only be necessary to turn a sufficient number of hogs into the lot, and they will entirely eradicate the artichokes, which cannot otherwise be accomplished.

Besides the use of this crop for stock, which the above mentioned authors consider to be equal to potatoes, they are also recommended highly as an article of human diet. It is true that when boiled, they do not possess that peculiar farinaceous quality, that is so much esteemed in the best sorts of potatoes; but it is said when roasted, they are a very delicate article for the table: their taste then very much resembling the ground nut of this country.

And from all my information in relation to the plant, I am persuaded that if every poor family in Ireland, and elsewhere, could devote one quarter of an acre of land to this article, they would at least be saved from famine for seven months in the year.

I submit the above observation, to the consideration of the enlightened members of the Agricultural Society, with my recommendation, that they will at least make an experiment, on a small portion of medium good soil, such as they usually devote to their potatoe crop: and I promise myself the satisfaction to see this crop generally raised throughout the country, as a cheap, certain, and profitable substitute, both for potatoes and turnips, where the object is the feeding of stock from November to May: by which, the farmer will be able to bring his ewes and lambs into his pastures in good health and condition, instead of the miserable plight in which they are now seen during the early spring months.

The dairy farmer will also, by the cultivation of this article, instead of seeing his cows shrunk and dried up in winter, receive a rich supply of milk at that season, when it is most valuable; and when his cows calve, he will have the means of fattening the calves, by which he will be saved both the loss and the shame of carrying lean veal to the market, to be sold for little more than the skin is worth. And he will find an article, on which to feed his teams, by which he will at least save one half of the dry short provender that farmers are now obliged to feed, and by which the health of his teams will be much

improved; and on the whole, I am persuaded, that by the cultivation of this productive vegetable, the economical farmer will be greatly enriched. If all the above benefits are not realized, I shall be much disappointed, as my reliance on this crop is so great, that I intend, the ensuing season, to plant all the seed I can possibly procure, at a reasonable expense.

DESCRIPTION OF A MOULD-BOARD,

Extracted from a letter, dated March 23, 1798, from Mr. Jefferson, to Sir John Sinclair, President of the Board of Agriculture at London, printed in the 4th volume of the Transactions of the American Philosophical Society in Philadelphia.

In a former letter to you, I mentioned the construction of the mould-board of a plough which had occurred to me, as advantageous in its form, as certain and invariable in the method of obtaining it with precision. I remember that Mr. Strickland of York, a member of your board, was so well satisfied with the principles on which it was formed, that he took some drawings of it, and some others have considered it with the same approbation. An experience of five years has enabled me to say, it answers, in practice, to what it promises in theory. The mould-board should be a continuation of the wing of the ploughshare, beginning at its hinder edge, and in the same plane. Its office is to receive the sod horizontally from the wing, to raise it to a proper height for being turned over, and to make, in its progress, the least resistance possible; and, consequently, to require a minimum in the moving power. Were this its only office, the wedge would offer itself as the most eligible form in practice.* But the sod is to be turned over also. To do this, the one edge of it is not to be raised at all; for to raise this would be a waste of labor. The other edge is to be raised till it passes the perpendicular, that it may fall over with its own weight. And that this may be done, so as to give also the least resistance, it must be made to rise gradually from the moment the sod is received. The mould-board then, in this second office, operates as a transverse, or rising wedge, the point of which sliding back horizontally on the ground, the other end continues rising till it passes the perpendicular. Or to vary the point of view, place on the ground a wedge of the breadth of the ploughshare, of its length from the wing backwards, and as high at the heel as it is wide. Draw a diagonal line on its upper face, from the left angle, at the point, to the right upper angle of the heel. Bevil the face from the diagonal to the right bottom edge, which lies on the ground. That half is then evidently in the best form, for performing the two offices of raising and turning the sod gradually and with

*I am aware, that were the turf to be raised to a given height, in a given length of mould-board, and not to be turned over, the form of least resistance would not be rigorously a wedge with both faces straight, but with the upper one curved, according to the laws of the solid of least resistance described by the mathematicians. But the difference between the effect of the curved and of the plain wedge, in the case of a mould-board, is so minute, and the difficulty in the execution which the former would superinduce on common workmen, is so great, that the plain wedge is the most eligible to be assumed in practice of the first element of our construction.

the least effort; and if you will suppose the same bevil continued across the left side of the diagonal, that is, if you will suppose a straight line, whose length is at least equal to the breadth of the wedge, applied on the face of the first bevil, and moved backwards on its parallel, with itself and with the ends of the wedge, the lower end of the line, moving along the right bottom-edge, a curved plane will be generated, whose characteristic will be, a combination of the principle of the wedge in cross directions, and will give us what we seek, the cross board of least resistance. It offers too this great advantage, that it may be made by the coarsest workman, by a process so exact, that its form shall never be varied a single hair's breadth. One fault of all other mould-boards is, that, being copied by the eye, no two will be alike. In truth, it is easier to form the mould-board I speak of with precision, when the method has been once seen, than to describe that method either by words or figures.

ANALYSIS OF SOILS.

"In cases when the general nature of the soil of a field is to be ascertained, specimens of it should be taken from different places, two or three inches below the surface, and examined as to the similarity of their properties. It sometimes happens, that upon plains the whole of the upper stratum of the land is of the same kind, and in this case, one analysis will be sufficient; but in vallies, and near the beds of rivers, there are very great differences, and it now and then occurs that one part of a field is calcareous, and another part siliceous; and in this case, and in analogous cases, the portions different from each other should be separately submitted to experiment.

"Soils when collected, if they cannot be immediately examined, should be preserved in phials quite filled with them, and closed with ground glass stoppers.

"The quantity of soil most convenient for a perfect analysis, is from two to four hundred grains. It should be collected in dry weather, and exposed to the atmosphere till it becomes dry to the touch.

"The specific gravity of a soil, or the relation of its weight to that of water, may be ascertained by introducing into a phial, which will contain a known quantity of water, equal volumes of water and of soil, and this may be easily done by pouring in water till it is half full, and then adding the soil till the fluid rises to the mouth; the difference between the weight of the soil and that of the water will give the result. Thus if the bottle contains 400 grains of water, and gains 200 grains when half filled with water and half with soil, the specific gravity of the soil will be 2, that is, it will be twice as heavy as water, and if it gained 165 grains, its specific gravity would be 1.825, water being 1000.

"It is of importance, that the specific gravity of a soil should be known, as it affords an indication of the quantity of animal and vegetable matter it contains; these substances begin always most abundant in the lighter soils."

DAVY.

To purify the muddy water of rivers or pits.

Make a number of holes in the bottom of a deep tub; lay some clean gravel thereon, and

above this some clean sand; sink this tub in the river or pit, so that only a few inches of the tub will be above the surface of the water; the river or pit water will filter through the sand, and rise clear through it to the level of the water on the outside, and will be pure and limpid.

Recent experiments have shewn that tiles are greatly improved, and rendered impervious to water and frost, by being rubbed over with tar before they are laid on the roof.

THE REAL HYSON TEA PLANT,

Introduced into the United States, and now cultivated in North Carolina.

A B——n, an old traveller in the Indies, and at present an inhabitant of Moore county, N. C. is well acquainted with the growth and cultivation of the above tea plant in foreign as well as this country, and also with the mode and manner of curing its leaves; and gives to the public the following communication respecting it:

As soon as the leaves arrive to maturity they should be gathered in the morning, while the dew is upon them, after three or four days of good sunshine weather in succession previous to gathering, and clear from any rain falling in the interim to wet them: then dry up the dew on them as early as you can in the shade, (say in a room where there is as little wind or air stirring as possible,) after which, put the leaves into a stone jar or jars, with as small mouths as can be had, so as to preclude the steam from getting out, or the air or water within, by tying cloths over them, and putting on plates or small waiters, with weight thereon: then set the jar or jars into a large pot or kettle, with water up to their necks, and by no means let any get into their mouths. boil it slowly, until the leaves are completely wilted: take the jar or jars out and set them away, with their covers securely on, until they and their contents are perfectly cool: take out the leaves, with their liquid substance (if any,) and put the whole together in equal quantities, into large dishes, to dry in the shade as before recited (say on tables in a room as clear of wind or air as possible,) often stirring the leaves, that they may absorb the liquid (if any) and dry with expedition: when thoroughly done, should be immediately canistered up, and is then fit for use.

The writer of this article has, for some years past, successfully cultivated and cured in this country the above plant from seed which he himself obtained from the East Indies; and there is not the least doubt but that it will prosper and do well in any part of the United States, as the seed which falls from the plant or otherwise will stand the winter of this climate, and come up in the spring; but the most advisable way is to gather the seed in the fall, and sow them in the spring, in small drills, of good fine earth, about two feet wide; from which you can draw out in a wet season, and transplant as other plants, as soon as three leaves appear on the plant, leaving and depositing them about eight inches apart, and cultivating them with a hoe, as you would cotton or indigo, which had better be done in the evening, when the heat of the day is over. Three gatherings may be had in a season—the first is the best.

A wisp of straw should be placed in the bottom of the pot or kettle, to set the jars on, when boiled.

From the Massachusetts Agricultural Repository.
ON RAISING THE OAK FROM THE ACORN,
AND THE BEST MODE OF DOING IT.

[BY THE EDITORS.]

It is very extraordinary, that, notwithstanding the Massachusetts Agricultural Society has for thirty years offered great premiums for the culture of the oak in plantations, and especially since the legislature enjoined it upon the several agricultural societies throughout the state to offer premiums for the raising of forest trees, but two claims should have been made. We can only account for it on one of the following grounds, either that the premium has not attracted the attention of our farmers, or that they have not sufficient spirit and enterprise, or that they are averse from any new culture, however important and reasonable. We shall take the article of White Oaks, which were selected by our society, as being the most valuable timber of the Northern States.

The premium offered in 1822, for one acre planted with white oaks, and found to be in the best state in September 1823, (that is at eighteen months old,) was 100 dollars per acre. The expense of raising seedlings of eighteen months old would not exceed twenty dollars more, if the following account be correct; indeed we believe it would not exceed ten dollars, as we can see no reason why the expense of planting an acre of acorns should exceed the expense of planting an acre of corn. There would be left then of clear profit to the raiser of an acre of oaks a profit of sixty dollars at least for two years culture, and as is remarked in the following article, a crop of grain may be raised at the same time sufficient to pay the whole expense. Have we no man in the state who is spirited enough to set the example, and carry away the honor and profit? The acre of oaks will *afterwards be his*, and there is no mode in which he could employ his land to so great advantage. It will not surely be said, that our farmers cannot spare any of their land, when our great error consists in holding more than we can, or do cultivate well.

On the mode of raising the Oak "from Hunter's Notes on Evelyn's Sylva."

"Having the ground properly prepared, (by breaking it up and reducing it to a fine tilth, either by potatoes or repeated ploughings) and having a sufficient quantity of acorns, all gathered from the most vigorous, healthy, and thriving trees, proceed to the setting them in the following manner. In the month of February or March [but in this country we say from experience, the months of November or December if the latter month be open,] let lines be drawn across the ground for the rows, at the distance of four feet from each other; but if this be thought too great an interval, the rows may be made three feet, in which case the acorns must be put down at a greater distance from each other. Then having sticks properly rounded to make the holes, (a common dibble) plant the acorns in the rows at ten inches asunder. Let them be put down about two inches below the surface, and see that the earth be properly closed upon them to prevent mice or crows from injuring the seed. In some places it is customary to sow acorns after the plough in furrows, but where the ground happens to be stiff, great care should be taken not to cover the seed with too thick a furrow.

"The first year after planting the acorns, the weeds must be kept down by hoeing and hand-weeding, and this must be done early in the spring before the weeds get so strong as to hide the tender plants, which would occasion many of them to be destroyed in cleaning. It is also the cheapest as well as neatest husbandry to take weeds down, before they grow too large; for though the ground may require an additional hoeing in spring, yet the weeds being hoed down when young, a man may hoe over a great quantity of ground in a day. Weeds cut in their tender state immediately die. Whereas, when they are old and strong, they frequently grow again, especially if rain falls soon after, they perfect their seeds in a short time, and thereby injure the whole plantation.

"The second year of their growth the common plough may be made use of, to cultivate and keep the ground clean, [or potatoes might be raised between the rows if proper care be taken not to trample on the plants.—Editors.]

As these acorns sometimes fail, the author proposes a nursery in the same field to supply the deficiencies.

"Having then given directions for the raising of wood, I proceed," says the author, "to their future management. And first, the rows being four feet asunder, and the plants two feet apart in the rows, they may stand in this manner for twelve or fourteen years, when every second plant may be taken out and sold for hoops or poles. After every second plant is taken away, let the roots of those taken away be grubbed up to give the remaining plants more room freely to extend their roots. The plants being now four feet apart each way, they will require no more thinning for seven or eight years, that is, till they are twenty years old, when the healthiest and most thriving trees must be marked to stand for timber, and the others cut down for poles, and their roots left to produce future underwood.

"The oak will grow and thrive on almost any soil, if properly planted, though it cannot be supposed that their success will be equal in all places. A rich, deep, loamy soil is what oaks most delight in, though they will grow exceedingly well in clays of all kinds, and in sandy soils, in which last, the *finest grained timber is produced*."

The author then proceeds to inquire, which of the different modes of raising oaks produces the best timber, from the acorn, the seed-bed, or the nursery. Mr. Evelyn decides in favor of planting the acorn, and Mr. Hunter adds, that whoever will look at the woods which were sown, and compare them with those which were planted from nurseries, will not hesitate a moment to declare in favor of Evelyn's opinion.

What are the obstacles to our following this excellent example of the great farmers of England, in the age in which our ancestors emigrated? Is it because we are too impatient, and unwilling to await so tardy a return? Yet there are constant pleasures in the annual growth of our forests; they seem to be the work of our own hands, at least of our own providence and care; they are subject to fewer hazards, and their profit is certainly greater than that of any other employment of capital on land, or is this aversion to planting the effect of an hereditary prejudice against trees? Our ancestors found their extirpation, their greatest labor, and do we

continue to feel their prejudice, when woodland is far the most valuable, and must constantly increase in its comparative value?

From the Providence Gazette.

Messrs. Editors—Observing in your useful paper an account of the manner of preserving peach trees from the fly in Virginia, by the application of tobacco, I am induced to send you the following, being the result of twenty years experience.

The fly makes its appearance here the first of April, resembles a wasp in size and shape, and is of a pale blue color. The whole process of the fly and worm is accurately described in the Virginia account. My remedy is to hill up the dirt from around the trees, to the height of 12 or 15 inches, and about 18 or 20 in diameter, pressing it close, to prevent its being removed by heavy rains. I removed the dirt about the 1st of August. If not removed until November, no injury will result to the trees; any substance impervious to the fly will answer the purpose as well as tobacco or dirt. OLD WARWICK.

From the Dartmouth (N. H.) Herald.

KEEPING HORSES.

Every gentleman, who is obliged by his health or his business to keep a horse, complains of the enormous expense incurred by it. If allowed to eat and waste as much as he chooses, a horse will consume from four to five tons of hay in a year, besides the necessary grain. But it is asserted from actual experiment, that ten pounds of good hay, with two quarts of corn a day, are enough to keep a common horse in fine order. Ten pounds of hay a day are 3650 pounds, little more than a ton and a half a year—and two quarts of corn per day are about twenty three bushels a year. Call hay seven dollars a ton and corn four shillings a bushel, and you make the annual expense of feeding a horse twenty six or seven dollars, about half as much as it commonly costs.

To keep a horse in the cheapest and healthiest manner, let him stand on green turf, dug up pretty thick, and placed on the floor of his stable—let him be carefully and faithfully curried every day. This is of more importance than is sometimes imagined. It opens the pores and preserves a healthful state of the skin, on which, in horses as in men, depends, as much as on almost any thing else, the proper and healthy operation of the various animal functions.

Although the inferior animals are not, like men, subject to unnatural appetites on account of unnatural stimulants received into the stomach, they unquestionably often consume more food than is necessary to maintain their vigor and spirit. This surplus it is economy to ascertain and retrench.

Corn is cheaper than oats for horses, because there is more heart in a quantity of the same price. It is better to be given two or three times a day in small messes—and to be given dry that the mastication of it may keep the mouth in a healthy state.

To measure hay the tare of a basket may be taken, and the hay given from it in small quantities through the day, but chiefly at night.

A horse that is not used should be fed with corn but sparingly. It should be occasionally salted.

is not perhaps generally considered, that horses are subject to colds and fevers as really men. They should therefore be used with tenderness and delicacy, and often washed cold water. The pulse generally indicates health of a horse. It may be felt about the back of the eye, and in health beats about strokes in a minute.

The great secret in making horses look well is to do well is attention to them. Men who above looking to their horses, will seldom see good ones.

In using horses it is better to drive briskly and stop often than to drive even slowly by long ges.

NEW ENGLAND FARMER.

SATURDAY, JULY 19, 1823.

Farmer's and Gardener's Remembrancer.

JULY.

HARVEST.—Much has been said and written about the proper time to harvest wheat. It is now generally agreed that it is better to cut wheat rather before it is ripe, and not wait till the whole becomes uniformly yellow. A writer in the *Memoirs of the Board of Agriculture of the State of New York*, observes that "a great deal of waste attends wheat, when it is permitted to become ripe before it is cut; in cutting, binding, pitching, loading, and carrying home, some will shell out; and it is a very common thing a fortnight after harvest, to see a field as thickly covered with young plants as if it had been sown over again; in this manner a couple of bushels to the acre are lost, without taking into the account that which has not sprouted. By cradling it a little before it is ripe, if the grain is not quite as plump, which generally it would be, at least it is compensated by saving that part of it which would have been wasted; it is got in in much cleaner condition, and the straw is in a better situation either for fodder or other purposes. It should be left as it is cradled twenty-four or forty-eight hours, according to the weather, as being more exposed to the sun and air, it will cure more perfectly than if immediately put into sheaves. This is very essential to be observed, for when put by in a damp situation, mouldiness is sure to take place, and it is diminished in value both for sale and for use."

Some recommend to make the bands for wheat in the morning early, while the dew renders the straw pliable, which may be well when the grain has been suffered to stand till it has become very ripe. It may likewise be well to bind your sheaves, when the straw is brittle, towards evening, as a small degree of moisture will not only make the straw tougher, but in some degree prevent the shelling of the grain.

When wheat or rye is blasted or mildewed it should be cut immediately, though still in the milk. It may lie on the ground till the straw is sufficiently dried, and the grain is in some degree hardened. But care should be taken that it be spread thin. Dr. Deane observed that "the heads should lie so as not to touch the ground; which may be easily done if the reapers will only take care to lay the top end of each handful on the lower end of the preceding one."

Rye may be reaped as soon as the straw is all turned, except at the joints, and immediately

below the ear has become so dry that no sap can be forced out by twisting it; and the kernel has become so hard that you cannot well break or mash it between your thumb and finger.

"Wheat and other grain that is lodged, may, and ought to be cut the earlier; for after the straw is broken or corrupted, it conveys no nourishment to the grain, or as bad as none.

"The ancients reaped their corn, as Pliny says before it was fully ripe. And it is certain that great inconveniences arise from letting some sorts of grain stand till they come to their utmost maturity. The chaff and straw are the worse for fodder. And if such corn chance to take wet in harvesting it suffers more for being very ripe. But grain cut in a greener state will bear a good deal of wet without damage."* But if wheat be intended for seed (as we shall show hereafter) it should not be cut till quite ripe.

LOOK TO YOUR GARDENS, NURSERIES, ORCHARDS, &c.—We are not a little apprehensive that in consequence of the hurry of hay time and harvest your garden, orchard, &c. have not commanded a sufficient share of your attention. In order to destroy wasps, ants, &c. you should hang up, or place glass phials, filled with honey or sugar water in such parts of your premises as are most exposed and most liable to their depredations. But these contrivances for destroying insects should be made use of before the fruit begins to ripen, otherwise the plunderers will prefer the fruit to your bait, and shut the road to their ruin. Hoe the ground about your fruit trees, flowering shrubs, &c. of all descriptions, that the weeds may not rob them of the nutriment which they would otherwise derive from the earth. Cut off all suckers and sprouts which spring from the roots of the trees. "Pick off all punctured and decaying fruits, and give them to hogs; also such as have fallen in that state from the trees; for the worms that are in these fruits, which have been the cause of their decline, will soon arrive at their fly or winged state, and attack the remaining fruit."† Or where it can be done without injury to any crop it would be of use to turn pigs into an orchard, to eat the fallen and decayed fruit, and thus destroy the insects contained in such fruit. If any of the branches of any species of fruit tree appear to be overloaded with fruit, they should be not only propped up, so as to prevent their being broken down, but it will often be found advisable to pick off by hand a part of the fruit, in order to give more room for the remainder. This process is more particularly necessary for peach and nectarine trees, in favorable seasons, but sometimes will be serviceable for apple trees, especially such as are young. Some people will consider this a very disagreeable task, both on account of casting away so much fruit, which they might think would do very well, and also on account of the time spent in performing the work; but this is a mistake, as the loss in number will be more than repaid by the size, flavor, and excellence of the remaining part; and besides, the trees will be preserved in health and vigor for the production of future crops."‡

When trees are suffered to bear a superabundant crop, the extraordinary efforts made to support their too numerous offspring, often so

exhaust them as to bring on diseases of which they frequently do not recover for at least two or three years; and sometimes always remain weakly and stunted.

COLLECTING SEEDS.—Great improvements may be made by selecting seeds from the earliest, most vigorous and thrifty plants. Even wheat for seed has been picked from the field by such single heads as were most forward, vigorous, large, and filled with the most plump and sound berry; and in that way a gradual improvement of the kind may be introduced. If we were about to purchase garden seeds, we should wish to be informed in what neighborhood, or fraternity of other vegetables they grew. Different sorts of plants of the same or a similar species, impart to each other their respective qualities. Thus if the genuine ruta baga grew near the common turnip, or turnip cabbage, the seeds of the former will have in part the peculiarities of the latter, and *vice versa*. If a mangel wurzel root, intended for seed, has grown near a plant of the common kind of beet which has likewise gone to seed, the seeds of each plant will partake in some degree of the qualities of the other. You should never save seeds from such water-melons, musk-melons, squashes, cucumbers, pumpkins, gourds, &c. as have grown near each other, unless in your crop from such seeds you would like to have melons which have somewhat of the flavor of squashes, cucumbers which taste a little like pumpkins, and pumpkins not much sweeter than gourds. There can be no cross between a cabbage and a carrot; but there can be between a cabbage and a turnip; between a cabbage and a cauliflower nothing is more common, and the different kinds of cabbages will produce crosses presenting twenty, and perhaps a thousand degrees, from the Early York to the Savoy. Turnips will mix with radishes and ruta baga; all these with rape; the result will mix with cabbages and cauliflowers; so that if nothing were done to preserve plants true to their kind, our gardens would soon present us with little besides mere herbage. To save the seed of two sorts of any tribe, in the same garden in the same year ought not to be attempted; and this it is that makes it difficult for any one man to raise all sorts of seeds good and true.*

Seeds should stand till quite ripe, should then be gathered when dry. If when threshed or shelled any moisture remains attached to them they should be dried in the sun, or near a fire. They are best kept in a room where there is occasionally at least, a fire in the winter. They are most securely kept in the pods or on the stalks, but this is sometimes inconvenient and often impracticable, unless it be for such as are very valuable, very curious, and lie in a small compass. Mr. Cobbett says that great care is necessary to avoid the use of unripe seed.—"Even in hot weather, when the seed would drop out, if the plants were left standing, pull, or cut the plants, and lay them on a cloth in the sun, till the seed be all ready to fall out; for, if forced from the pod, the seed is never so good. Seeds will grow if gathered when they are green as grass, and afterwards dried in the sun; but they do not produce plants like those coming from ripe seed. I tried some years ago, fifty grains of wheat, gathered green,

* *Georgical Dictionary.*

† *M'Mahon.*

‡ *Ibid.*

* *American Gardener.*

against fifty gathered ripe. Not only were the plants of the former feeble, when compared with the latter; not only was the produce of the former two thirds less than the latter; but even the quality of the grain was not half so good. Many of the ears had *smut*, which was not the case with those that came from the ripened seed, though the land and the cultivation were, in both cases, the same.* Other writers advise not to reap wheat infected with smut till fully ripe, and perfectly dry, and according to Mr. C. wheat intended for seed should in all cases be allowed to become quite ripe before it is reaped.

A writer whose observations are quoted with approbation in the "Complete Farmer," an English work of authority, says "I never thresh the sheaves which are to supply me with seed till just when I want to make use of it. I have a notion that the seed keeps better in the covering nature has given it, I mean the chaff; than it would do without it; and I am pretty certain it sprouts sooner in the ground, the husk or bran being preserved in a tenderer and more yielding state than it would be were it exposed to the open air." If new seed is to be preferred to old, (which we believe to be the correct doctrine on this subject) wheat, rye, &c. may easily be kept in the sheaf, or at least in the chaff, and have no doubt but this will be found the most beneficial mode of preserving it.

WEEDS MADE USEFUL.—There are some vegetable productions, which we denominate weeds, such as purslane, pigweed, brakes, &c. which make good food for swine, and should be gathered and given to them whether they are kept in pastures or pens. Even when pigs are suffered to run in highways, (a practice by no means to be justified, but sometimes tolerated) it is best to give them every green thing which they will devour. The suckers of corn they will receive with thanks expressed in their dialect. But if weeds have so far arrived to maturity that their seeds would grow if they had a chance, you will do best to burn them with fire or quick lime, or to bury them in a compost heap, where they will be apt to lose their germinating principle by fermentation. Sometimes it will be found expedient to bury them near the spots where they grow, between the rows of your cabbages, corn, &c. and they will furnish food for growing crops, or enrich the soil for the benefit of your future husbandry. Every thing which has grown, even if it be a thistle, a briar, or any thing else noxious or cumbersome, may serve as food for some useful product of the earth. The only question is whether it will cost more to save it for manure than it will be worth when saved. But it should be a general rule to let no vegetable nor animal substance wither or putrefy above ground. Bury your weeds then as you sever them from the soil by hoeing if convenient, and if even a mouse dies on your premises, honor his remains with at least one shovel full of earth; and thus enrich your soil, and save the atmosphere from unwholesome effluvia. When you have dug potatoes for family use, bury the tops under earth enough to absorb the products which arise during their decomposition, and make some allowance for some part of the soil's being washed away by the next shower. And when the vines of your peas, beans, squashes, water me-

lons, &c. &c. have done bearing, please not to leave them cumbering your premises, rotting above ground, nor harboring insects, but bury them in your compost bed, your barn yard, or dig trenches where they grew in which they may be deposited, and let them manure the earth instead of the atmosphere.

GATHER HERBS FOR DRYING, DISTILLING, &c.—Herbs, such as mint, balm, penny-royal, sweet marjoram, hyssop, sage, spear-mint, pepper-mint, tansy, wormwood, lavender, marygold, camomile, &c. should be gathered about this time in order for distilling, and for family use. They should be cut in a dry day, when they are in the highest perfection, nearly of full growth and in full bloom, and spread to dry in a shady place. When sufficiently dried they may be put up in paper bags ready for use.

We think ourselves greatly honored by the following official testimony in favor of the manner in which the New England Farmer has been conducted; and our highest ambition will be to continue to deserve the approbation of a body so competent to appreciate the value of our unremitted efforts to merit encouragement from the agricultural part of the community. We are not only pleased with, but proud of, our present employment, and when adequate judges inform us that our labors are "highly useful to the farming interest," we receive a reward, which is more grateful to us than would be the "boast of heraldry, the pomp of power," or all that wealth can bestow. We are fully of opinion with Mr. LOWELL, (as expressed in the editorial remarks of the last No. of the Massachusetts Agricultural Journal) that agriculture is not only "one of the most but indeed the most important branch of human industry." If, then, we can promote the interests of agriculture by our humble efforts, we cannot aspire to any higher honor, and our ambition cannot form a wish which will not be completely gratified.

At a meeting of the Board of Trustees of the Massachusetts Society for promoting Agriculture, held July 12, 1823—

VOTED, That in the opinion of this Board, the weekly paper entitled the "NEW ENGLAND FARMER," from the able manner in which it is conducted, is calculated to be highly useful to the farming interest, and deserving of more extensive patronage than it has hitherto received; we therefore cheerfully offer this expression of the approbation of the Board, and of a hope that there will be found a willingness in the public to increase the subscription so far as to enable the publisher to continue his paper, and thus secure permanently to farmers, this valuable vehicle of agricultural information, which we think the best of the kind with which we are acquainted.

A copy from the record,
BENJ. GUILD, Assistant Rec. Sec.

JERUSALEM ARTICHOKE.

The observations of Mr. McKean, in the article which commences this day's paper, cannot fail to suggest important ideas to every person, who is concerned or feels an interest in the

pursuits of agriculture. We have attempted to procure information relative to a plant which we have been in the habit of considering to be little better than the most worthless weed that annoys the cultivator. The result of our inquiries is that the Jerusalem Artichoke is called by botanists *Helianthus Tuberosus*, and is of the same genus with the Sunflower. Dr. Darwin informs us, (*Phytologia*, sec. xvi.) that "horses are fond of the leaves, and swine of the roots, both of which are produced in great quantities, and as the latter contain much sugar, they may be nutritive; and in respect to their culinary use are remarkably grateful to most palates, as well as nutritive, when cut into slices, and baked in beef or mutton pies; but are said to be flatulent in the bowels of those whose digestion is not very powerful; a property, which might be worth attention, where the propensity to fermentation is required, as in making bread with potatoes, or in the distillery."

A writer for the Bath Society Papers, vol. i. page 278, with the signature N. Bartley, says "At a considerable expense and trouble, I procured of these roots sufficient to plant half an acre of ground; but I have them now in great plenty; I find the produce to be about four hundred and eighty Winchester bushels to the acre; and I think they are about equal in value to potatoes for feeding store pigs, such as are not less than five or six months old. For fattening hogs I do not find they are near so valuable as potatoes. But their chief recommendations are the certainty of the crop, that they flourish in almost any soil, and do not require any manure at least for such a produce as I have stated.—They are proof against the severest frost, and may be taken out of the ground as occasion may serve; whereas potatoes are soon affected with frost, and must therefore be secured before winter sets in. I generally plant three or four acres in a season."

The writer planted his artichokes, in England, in the beginning of March, in drills three feet and an half asunder, and the sets or cuttings nine inches apart in the rows.

The Farmer's Assistant recommends boiling these roots for feeding swine, and says they will grow well in almost any dry soil, even if it be poor. When cut and ground in a cider mill, they make good food for horses, with the addition of a little salt. Mr. Legaux, of Springmill, Pennsylvania, raises this root from Dutch seed, and has them eight or nine inches in diameter. He says they are easily kept through winter in the ground, nothing being requisite further than to dig a trench round them to prevent the water from injuring them.

We have conversed with practical farmers on the subject of cultivating the artichoke, and have always found them opposed to it, principally on account of the difficulty of clearing the ground of this root. They say that there is no

* American Gardener.

so difficult to subdue, and if it once gets possession of a piece of ground it maintains its monopoly in defence of all ordinary methods of propagation. But if the industry of hogs is all that is wanted, as Mr. McKean informs us, there is nothing to be apprehended on that score. If we will "grow to some perfection in woodlands," on a soil which would produce little or nothing else of value, it might render millions of acres in the United States productive, which are nearly or quite useless. It would cost nothing for seed after the first year, and afford considerable product, with no labor, except that of gathering it. It is, moreover, a species of the Helianthus, or Sunflower, which we are told produces, by the perspiration of its leaves, much greater quantities of oxygen gas, or vital air, than any other vegetable. It may thus promote health as well as furnish subsistence. Perhaps, too, its leaves and stalks may be worth something as ingredients in compost beds, or to sow over the farmers' yard in the autumn.

FOREIGN.

LATEST FROM EUROPE.

By an arrival at New York, from Liverpool, London papers have been received to the 2d, and Liverpool papers to the 3d of June. Paris dates were received by the same arrival to the 30th of May. By these it should seem that Madrid was occupied by the French on the 23d of May, and a regency was established on the day following. Count Abisbal, the constitutional General of the army of Madrid, has retired to the enemy. That officer, in a letter to the French commander, stated that he is of opinion that the majority of the nation is not solicitous to continue the constitution of the year 1812. He advises the king to dismiss his ministers and appoint others who would to no party, and who would deserve the confidence of all Spaniards, as well as of all Foreigners.

The London Courier of the 28th May says, "We are assured that Ministers consider the intelligence yesterday received from Spain, as decisive with regard to the war. The proceeding of Count Abisbal to lead to such arrangements as will speedily put an end to hostilities. He despatched copies of his answer to Montijo, to Mina, Ballesteros, and Morillo, and it is not doubted they would act in concert with him. Abisbal's army did not exceed four thousand men, and prudently marched them from Madrid, fearful of consequences that would likely ensue, had they remained in the capital when the French troops entered it."

The London Sun of the 31st May states that negotiations between France and the new Spanish Ministers are now in progress, and that the whole has been managed with the full knowledge and sanction of the British government. Many of the Cortes have absented themselves with the understanding that they are not to be molested when the new order of affairs is established. Austria has assembled no army, and together with Prussia and Russia has resolved to adopt a policy entirely neutral. The terms offered by France to Spain, they say, are such as will be satisfactory to the people in general.

There is a great deal more of guess work in these reports not worth republishing. All we can learn is that the Spaniards are about to submit to such an order of things as their dictators think proper to prescribe.

The Greeks.—It is said that arrangements have been effected, through the British Minister at Constantinople, by which Greece is to be declared free, on condition of paying to the Porte annual tribute equal to the revenue which the Porte formerly derived from Greece.

Ireland.—The last accounts from that unhappy country represent the state of society as worse than the

savage. Anarchy, pillage and murder are predominant throughout the kingdom, and law and social order have ceased to control the passions, or regulate the conduct of the great mass of the population.

Progress of Revolution in South America.—The province of Guadalupe, in Mexico, has declared itself free and independent of the other provinces of America, in a proclamation of 22 articles. She will hold no relations, except exterior ones, with the other provinces, and recognise nothing which the deputies in the present Congress may do contrary to this. It is proposed to establish a perpetual Congress at Queretaro, to raise an army, build a navy, &c.

The New York American says, "We learn on the authority of a Colombian gentleman in high official station, now in this city, that the Congress of that Republic, considering its own independence as firmly established, has authorized Gen. Bolivar to proceed with 4000 men to the aid of the Peruvian government, in addition to 4000 troops previously allotted to that service."

DOMESTIC.

Bunker Hill Monument Association.—At the late session of the Legislature of Massachusetts an act was passed to incorporate a company with this title. An Address setting forth the objects of this association has been prepared, and has the highly respectable signatures of Daniel Webster, William Sullivan, H. A. S. Dearborn, Wm. Tudor, Richard Sullivan, Samuel D. Harris, F. C. Gray, Samuel Swett, and Geo. Ticknor. The object of this association, as stated in this address, "is to cause to be erected a MONUMENT, which shall be consecrated to the great leading characters and events, both civil and military, of the American Revolution, up to the 17th of June, 1775, to bear appropriate descriptions, names and dates." It is added that "as soon as arrangements can be concerted, appeals will be made through committees to individuals. All will have an opportunity of contributing as their ability or inclination may prompt. The smallest donations will be gladly received, and the humblest citizen may have an opportunity of saying that he has contributed something to testify his respect for the labors and sufferings of his ancestors. An exact account of all subscriptions will be kept; those of each town entered separately, and the name of each donor recorded in a permanent volume, to be deposited and preserved in the monument."

Robbery of the Mail.—On the morning of the 7th inst. about 2 o'clock, the mail stage from Philadelphia to Baltimore, was robbed about 16 miles from the last mentioned city. A rail fence had been thrown across the road by the robbers, which stopped the stage. Three men advanced, at whom the guard discharged his blunderbuss and two pistols. Although some of the shot took effect, the robbers knocked down the guard, and compelled the driver to flight. The guard was held in duress by one of the robbers, while the others rifled the mail, and the whole retreated. The alarm having been given by the driver, a party proceeded to the place where the crime was perpetrated, a shirt was found, which it was ascertained belonged to one of the laborers who worked at a forge in the vicinity, and it was found that the robbers were workmen, whose names were Ward, Emmenheiser, and Moore. The latter confessed the crime, and they were all committed for trial.

Windows.—The Baltimore Morning Chronicle, in noticing the recent death of a child by a window sash falling on its neck, has some remarks respecting the manner of their construction, which it considers unsafe, and recommends windows to open like folding doors, as preferable both for ornament and safety. This improved mode of making windows, we are informed, has been adopted in many of the large cities of Europe, and travellers who have returned from their tours in that country are so convinced of the superiority of construction in the manner of folding doors that they are surprised not to find them adopted in this country, where the useful arts are in such a high state of improvement.

The constituents of Mr. McDuffie, of South Carolina, have recently given him a dinner, at which he made a long speech.

AGRICULTURAL PREMIUM, FOR THE BEST MANAGED FARM.

At a meeting of the Board of Trustees of the Massachusetts Society for promoting Agriculture, held at the President's, 12th July, 1823, it was

VOTED, That this Society will grant as a premium to the owner of the best cultivated Farm within the precincts of the several Agricultural Societies of the State, the sum of Thirty Dollars each, in addition to the premium which may have been awarded the claimant by the local Society; and that it will accept, as full evidence of the merit of the claimant, a certificate signed by the President of the local Society, certifying that such person was declared by the Society or their Trustees, entitled to the premium within that district;—that the applicant shall, however, in all cases, be held to exhibit to this Society, a statement of the extent of his farm; the state and plan of his farming buildings; his mode of collecting and managing manure; the number of domestic animals usually supported thereon; the quantity and quality of land under cultivation, and his usual mode of culture, as well as the average amount of his crops, of all sorts.

A copy from the record,
BENJ. GUILD, Assistant Rec'g Sec'y.

July 12, 1823.

JOB PRINTING neatly executed at the Farmer Office, on reasonable terms.

PRICES OF COUNTRY PRODUCE, &c.

[Revised and corrected every Friday.]

		FROM	TO
		D. C.	D. C.
ASHES, pot, 1st qual.	ton.	140 00	143 00
pearl do.		150 00	153 00
BEANS, white,	bush	1 00	1 10
BEEF, mess, 200 cwt.	bbl.	9 00	9 50
cargo, No 1,		8 00	8 50
" No 2,		6 75	7 00
BUTTER, inspect, 1st qual.	lb.	11	12
" 2d qual.		9	10
small kegs, family,		12	14
CHEESE, new milk		7	8
FLAX		3	9
FLAX SEED	bush	85	90
FLOUR, Baltimore, superfine,	bbl.	7 75	8 00
Genesee		7 75	8 00
Rye, best		4 50	4 75
GRAIN, Rye	bush	70	73
Corn		58	60
Barley		68	70
Oats		40	42
HOGS' LARD, 1st sort	lb.	9	10
HOPS, No 1,		8	12
LIME,	cask	1 25	1 37
OIL, Linseed, American	gal.	65	00
PLASTER PARIS	ton.	2 75	3 00
PORK, Navy Mess	bbl.	12 00	12 50
Bone Middlings		14 00	14 50
Cargo, No 1,		12 00	12 50
Cargo, No 2,		11 00	11 50
SEEDS, Herd's Grass	bush	2 00	2 25
Clover	lb.	8	9
WOOL, Merino, full blood, washed		55	60
do do unwashed		46	50
do 3-4 washed		50	55
do 1-2 do		45	47
Native do		37	40
Pulled, Lamb's, 1st sort		55	60
do Spinning, 1st sort		50	55

PROVISION MARKET.

BEEF, best pieces	lb.	8	10
PORK, fresh		7	8
VEAL,		6	8
LAMB, per quarter		30	45
POULTRY,		10	12
BUTTER, keg & tub		13	14
lump, best		15	20
EGGS,	doz.	14	15
MEAL, Rye,	bush	75	80
Indian,		75	
POTATOES,		45	47
CIDER, liquor,	bbl.	1 50	2 25
HAY, best,	ton.	13 00	22 00

THE HAPPY MAN.—*Translated from Horace.*

Happy the man, who free from care,
Manures his own paternal fields,
Content, as his wise fathers were,
To enjoy the crop his labor yields.

Nor usury torments his breast,
That barter happiness for gain,
Nor war's alarms disturb his rest,
Nor hazards of the faithless main :

Nor at the ever wrangling bar,
With costly noise and dear debate,
Proclaims an everlasting war,
Nor fawns on bad men basely great.

But for the vine selects a spouse,
Chaste emblem of the marriage bed,
Or prunes the too luxuriant boughs,
And grafts more fruitful in their stead :

Or views the lowing herds, that share
The produce of his fertile plains,
And ponders with delightful care,
The prospect of his future gains :

Or shears his sheep which round him graze,
And droop beneath their curling loads,
Or plunders his laborious bee
Of balmy nectar, meet for gods.

When autumn comes to crown the year,
And bending boughs reward his pains,
Joyous he plucks the luscious pear,
The purple grape his finger stains.

Each honest heart's a welcome guest,
With tempting fruits his table glows,
And still the Almighty Donor's blest,
For what his Providence bestows.

LIGHTNING RODS.

The first object of the rod (says Dr. Franklin) is to prevent a discharge of electricity from the cloud—to effect this object, the rod should be well elevated, and terminate in a slim sharp point. Dr. Franklin's experiments as well as others, prove that the power of the pointed rod extends quite to the clouds, and takes from them a vast quantity of the fluid before they arrive within the striking distance. From the rod which he erected on his own house, he led a small wire into one of the rooms in the house; on the end of the wire was fixed a small bell, and at six or eight inches distance from the bell was placed another; from this bell a wire was led into the cellar and fixed to the pump rod; between the two bells, a brass ball was suspended by a silk thread; when a thunder cloud appeared over the house, the bells would be electrified, and the brass ball would be attracted and repelled alternately, an *éclat* quickly between the bells, and keep up a continual ringing till the cloud had passed over the house. At one time he was awakened by an unusual noise—he immediately sprang out of bed to ascertain the cause; and on opening the door he perceived the quantity of fluid that was passing down was unusually great; the brass ball was removed at a distance from the bells, and an uninterrupted column of fluid was passing from one bell to the other. This circumstance is sufficient to prove that the pointed rod will prevent, or at least, lessen the discharge from the clouds; a dull or blunt point will have little or no effect; therefore, pains ought to be taken to have it in its proper shape.

The second object of the rod is to receive and conduct the electrical fluid into the earth, when the point is insufficient to prevent a discharge from the cloud; to effect this object, the conducting power of the rod should be made as great as possible, by having the rod communicate with some conducting substance, such as water, or very moist earth. Franklin says, the rod should be settled, at least, six feet below the surface of the ground. Some have recommended putting a large quantity of charcoal at the bottom of the rod, and have it extend some distance from it; this may have a good effect, for charcoal is a perfect conductor of electricity. The conductor ought to be three fourths of an inch in diameter; rods of iron but little smaller than this have been known to be completely dissipated at one stroke of lightning.—The rod ought to pass in the most direct course possible, for the conducting power of a rod or wire is always weakened by increasing its length, and the fluid will follow a short conductor in preference to a long one, in all cases. It ought to be supported by wood, and not suffered to come in contact with any metallic substance, such as staples, or nails of iron, brass or any other metal.—*Providence Journal.*

There is sense in the following extract at least; whether it be common sense or not, we will not pretend to decide:

SENSE.—There are a great many gradations of wisdom among people—there is good sense, great sense, and fine and high sense, besides no sense and little sense; but the best kind of sense in my estimation, is that which is vulgarly denominated *common sense*. Your good sense is always running away with itself; your great sense is sure to have mischief at the bottom of it; your fine sense makes broken hearts; your high sense broken heads; your no sense goes blundering to the devil often, and your little sense is not much better—but common sense fills a man's purse with dollars, his cellar with beef and pork, and his peaceful fire-side with a good wife and good children. Common sense is best.

From the Nantucket Inquirer.

"SHEARING."

The annual *Shearing* took place on Monday and Tuesday last. Our distant readers may possibly smile at this annunciation of an event apparently so unimportant. But when we assure them that this is almost the only jubilee which we islanders allow ourselves to celebrate in any sort of style, they may offset this account against the innumerable details of *Election festivals*, *Fourth-of-July parades*, *Tammany dinners*, *Christmas treats*, *Linnæan coronations*, *Krout feasts*, and *Horse Races*, at which we are ever and anon compelled to expand our optics and smack our lips in envious wonderment.

There are about 10,000 Sheep kept on this island, which it had hitherto been customary to shear in two separate flocks, east and west of the town. The sheep owners the present year, however, resolved on a general shearing; and for this purpose an area of 300 acres was inclosed, about three miles south of the town, into which the sheep, collected from all quarters of the island, were driven. In the centre of this field, a large circular pen was formed, bordered on its exterior by the private pens of

each sheep owner, where the sheep were severally shorn.

Whatever may be the opinions of our transmarine readers, the vast flock thus concentrated together with the multitude employed in shearing, and gathered to witness the operation, presented no contemptible spectacle. If the exhibition was not in itself calculated, equally with any military display, to inspire ideas of national independence, it at least imbued the beholder with some notion of domestic comfort, and directed his mind back to the sylvan simplicity of the patriarchal ages.

On the spot a number of large tents were erected, through which the voice of festivity resounded. We have not been furnished with any formal order of the rites therein performed, but the following may be imagined to have been among the "toasts drank on the occasion."

The festival we celebrate—May our political and ecclesiastical shepherds be as careful to shear too close.

Commerce—The golden fleece of the nation and *Agriculture and Manufactures*—May they flourish by hook or by crook.

National Independence—May it prosper more by industry than gunpowder.

Our Legislators—May their tongues never like lamb's tails, wag, wag, wag.

The Krout Club—Cabbage heads and Mutt heads; may a sufficiency of pluck attend both.

The Fair Sex—When our beaux cast sheep eyes towards them, may they become warm wool.

FORTY YEARS AGO—

Literature meant learning, and was supported by common sense. Refined nonsense had advocates, and was pretty generally kicked out of doors.

Forty years ago—men of property could labour and wear homespun to church. Women could spin and weave, make butter and cheese, while husbands were worth thousands.

Forty years ago—there were but few merchants in the country—few insolvent debtors and very rarely imprisoned for debt.

Forty years ago—the young ladies of the first respectability learned music, but it was the humming of the wheel, and learned the necessary steps of dancing in following it. The forte piano was a loom, their parasol was broom, and their novels the bible.

Forty years ago—the young gentlemen hoed corn, chopped wood at the door, and went to school in the winter to learn reading, writing and arithmetic.

Forty years ago—there was no such thing as balls in the summer, and but few in the winter except snow balls: and

Forty years ago—if a mechanic promised to do your work, you might depend on his word the thing would be done.

TERMS OF THE FARMER.

Published every Saturday, at THREE DOLLARS per annum, payable at the end of the year—but those who pay within sixty days from the time of subscription will be entitled to a deduction of FIFTY CENTS.

No paper will be discontinued (unless at the discretion of the Publisher) until arrearages are paid.

Agents who procure seven subscribers, and become responsible for the payment, will be entitled to copy gratis, and in the same proportion for a larger number.

NEW ENGLAND FARMER.

PUBLISHED BY THOMAS W. SHEPARD, ROGERS' BUILDINGS, CONGRESS STREET, (FOURTH DOOR FROM STATE STREET.)

Vol. I.

BOSTON, SATURDAY, JULY 26, 1823.

No. 52.

[From Elkington on Draining.]

AN ACCOUNT OF THE MOST APPROVED MODE OF DRAINING LAND, &c. &c.

In the year 1763 Mr. Elkington was left, by his father, the possession of a farm, called Princethorpe, in the parish of Stretton upon Dunsmore, and county of Warwick. The soil of this farm was very poor, and in many places extremely wet, that it had been the cause of rotting several hundred sheep; which was the first circumstance that determined him, if possible, to drain it; which he began to do in 1764.* The field in which he began, was of a wet clay soil, rendered almost a swamp (and, indeed, in some places, a *shaking bog*;) by the springs issuing from a bank of gravel and sand adjoining it, and overflowing the surface of the clay. In order to drain this field, he cut a trench about four or five feet deep, a little below the upper side of the bog, or where the wetness began to make its appearance; and after proceeding with it so far in this direction, and at this depth, he found it did not reach the *main body of sub-jacent water*, from whence the evil proceeded. On discovering this, Mr. Elkington was at a loss how to proceed. At this time, while he was considering what was next to be done, one of his servants accidentally came to the field where the drain was making, with an iron crow, or bar, which the farmers in that county use in making holes for fixing their sheep hurdles.—Mr. Elkington, having a suspicion that this drain was not deep enough, and being desirous of knowing what kind of strata lay under the bottom of it, took the iron bar from the servant and after having forced it down about four feet below the bottom of the trench, on pulling it out, to his astonishment, a great quantity of water burst up through the hole he had thus made, and ran down the drain. This at once led him to the knowledge of wetness being often produced by water confined farther below the surface of the ground than it was possible for the usual depth of drains to reach, and induced him to think of applying an auger, as a proper instrument in such cases.

Thus did the discovery originate from chance, the parent of many other useful arts! Fortunate it is for society, when such accidents happen to persons who have sense and judgment to avail themselves of the hints thus fortuitously given! In this manner, he not only accomplished the drainage of this field, which soon rendered it completely sound, but likewise all the other wet ground on his farm.

The success of this experiment soon extended Mr. Elkington's fame, in the knowledge of draining, from one part of the country to another; and after having drained several farms in his neighborhood, with equal success, he at last came to be very generally employed; has been since, and is now (1797,) engaged in various parts of the kingdom, which shall be more particularly noticed in the sequel. It is, indeed, now, impossible for him to execute half the

employment he has in hand, or to accept the numerous offers that are every day made to him. From his long practice and experience, he is now so successful in the works which he undertakes, and also in judging of the internal strata of the earth, and nature of springs, that he can, with remarkable precision, judge where to find water, and where to trace the course of springs that make no appearance on the surface of the ground. The rules on which he acts, with regard to these discoveries, will be afterwards explained, in treating of the nature of wet grounds caused by springs.

Lastly—Within these few years past, since his practice has been so widely extended, and so generally successful, he has drained, in various parts of England, particularly in the middle counties, many thousand acres of land; which, from being originally of little or no value, is now as productive as any in the kingdom, capable of producing the most valuable kinds of grain, or of feeding the best and healthiest species of stock.

Some persons have erroneously entertained an idea, that Mr. Elkington's sole skill lies in applying the auger for the *tapping of springs*, without attaching any merit to his method of conducting the drains. The accidental circumstance above stated, gave him the first notion of using an auger, and directed his attention to the practice of draining; in the course of which he has made various useful discoveries, which are afterwards more fully explained. It will be sufficient here to remark, that draining, according to his principles, depends upon three points, 1st. Upon finding out the *main spring*, or cause of the mischief; without which nothing effectual can be done. 2d. Upon taking the level of that spring, and ascertaining its *subterraneous bearings*; a measure never practised by any, till Mr. Elkington discovered the advantage to be derived from it; for if the drain is cut a yard beyond the *line of the spring*, you can never reach the water that issues from it; and, by ascertaining that line, by means of levelling, you can cut off the spring effectually, and, consequently, drain the land in the cheapest and most eligible manner. The manner in which this is done, will be afterwards described. And, 3dly, By making use of the auger to reach or *tap* the spring, when the depth of the drain is not sufficient for that purpose.

In regard to the use of the auger, though there is every reason to believe Mr. Elkington was led to employ that instrument from the accidental circumstance stated above, and did not derive it from any other channel; yet there is no doubt that others have hit upon the same idea, without being indebted for it to him. It is said, that in attempting to discover mines by means of an auger, springs have been tapped, and the adjacent wet ground thereby drained, either by letting the water down, or giving it vent to the surface. The auger has also been made use of in bringing water into wells, by boring in the bottom of them, to save the expense of digging, especially in Italy, where it is probable that the practice is very ancient. But that it has been used in draining land, before

Mr. Elkington made this discovery, no one has ventured to assert.

In Dr. Nugent's Travels through Germany, printed anno 1768, there is an account of a mode of draining land, on principles, in some respects, of a similar nature; not, indeed, by the use of the auger, but by making pits; and in a publication by Dr. James Anderson, entitled, "Essays on Agriculture & Rural Affairs," printed anno 1797, after describing a mode of tapping, the doctor had adopted, by sinking small pits, he adds, "I have often imagined that the expense of digging these pits might be saved, by boring a hole through this solid stratum of clay, with a wimble made on purpose; but as I have never experienced this, I cannot say whether it would answer the desired end exactly."

Mr. Elkington, however, made use of the auger prior to the date of these publications, or to any hint he could possibly derive from any publication in the English language; though it is probable that, in so far as regarded *tapping of springs for wells*, the use of the auger was well known in some parts of Italy. Buffon states, "that, in the city of Modena, and four miles round, whatever part is dug, when we reach the depth of sixty-three feet, and bore five feet deeper with an auger, the water springs out with such force, that the well is filled in a very short space of time. This water flows continually, and neither diminishes nor increases by the rain or drought." Mentioning the different strata that are to be met with to this depth, he adds: "The successive beds of fenny or marshy earth and chalk, are always found in the same order, wherever we dig; and very often the auger meets with large trunks of trees, which it bores through, but which give great trouble to the workmen; bones, coals, flint, and pieces of iron, are also found."—*Buffon's Nat. History.*

ON THE PRINCIPLES OF MR. ELKINGTON'S MODE OF DRAINING.—It is remarkable, that the principles on which the draining of lands depends, being so great a desideratum in agriculture, should have been so little known or attended to; or that the practice of it, according to these obvious principles, should have been so much confined, while improvements in the other branches of husbandry have been carried almost to the highest possible perfection.

However intricate or abstruse it may hitherto have been considered, even by those who were otherwise well informed in the theory of agriculture, of which it forms the most important branch; yet it will appear, from the following observations, to be founded on circumstances the most plain and rational, and which, when reduced to practice, produce those effects which a simple knowledge of the cause naturally points out.

Wetness in land proceeds from two causes, as different in themselves as the effects which they produce.

It proceeds either from rain water stagnant on the surface, or from the water of springs issuing over, or confined under it. On clay soils, that have no natural descent, wetness is

* After the drainage of this field was completed, Mr. Elkington's flock was never afterwards affected with that disease.

commonly produced by the first of these causes, but in a variety of situations, it may proceed from the latter.* But,

The principles of Mr. Elkington's art are so closely connected with the nature of springs, that, without a knowledge of these, and the causes producing them, it is impossible to practice it either with success or advantage; for *surface draining*, where the wetness proceeds from subjacent water, is only alleviating the effect, in place of removing the cause. It will, therefore, be necessary, in the first place, so far to ascertain the nature of springs, and their connection with the formation of bogs, as to enable the practical drainer more easily to comprehend the theoretical part of Mr. Elkington's system.

From its general external appearance, and by the perforations that have been made in it by quarries, wells, and other subterraneous pits, the earth is known to be composed of various strata; which, being in their nature of opposite consistence, are distinguished by the names of *porous* and *impervious*. Those strata, which, from their more open composition, are porous, and capable of receiving the rain that falls on them, include rock, gravel, sand, and such marls as are of an absorbent quality. Clay, and a certain kind of gravel, having a proportion of clay in its composition, which, by binding and cementing the small stones together, render it equally close and tenacious as clay itself; with such rock as is of a close and compact nature, without any fissures in it, are the principal strata that most resist the reception of water, and that are capable of retaining it, on their surface, till exhaled by the sun, or carried off by suitable drains, and are termed *impervious*.

Springs, therefore, originate from rain water falling upon such porous and absorbent surfaces, and subsiding downwards, through such, till, in its passage, it meets a body of clay, or other impenetrable substance, which obstructs its farther descent; and here, forming a reservoir, or considerable collection of water, it is forced either to filtrate along such body, or rise to some part of the surface, where it oozes out in all those different appearances that are so frequently met with. This is evident from the immediate disappearance of the rain water, as it falls on some parts of the ground, while it remains stagnated on others, till carried off by evaporation; and from the strength of springs being greater in wet than dry seasons. Hence, after incessant rains, they are observed to break out in higher situations, and as the weather becomes dryer, give over running out, unless at their lower outlets. The strength of springs also, or quantity of water, issuing from them, depends chiefly on the extent of high ground that receives and retains the rain, forming large reservoirs, which afford them a more regular supply. Thus bogsprings, or such as rise in valleys and low situations, are much stronger, and have

* Wetness of land is sometimes occasioned by the stagnation of water in the surrounding ditches, or in some adjoining hollow, where, for want of declivity in the former, and owing to the higher situation of the latter, it oozes out upon the lower ground, and finds its way into the open parts of the soil. This is frequently the case, where water is conveyed in a lead or artificial channel, the land lying lower and adjoining to it, being very often wet from that cause. The remedy for these kinds of wetnesses is simple, and points out itself.

a more regular discharge, than those which break out on higher ground, or on the sides of hills.

Independently of these causes, there are certainly great springs contained in the bowels of the earth, otherwise, how could the many rivers that intersect it, be supplied with such vast quantities of water as they discharge, the rains falling on its surface, or the dews that descend, not being adequate for that purpose; but, as this may be considered among those arcana of nature which have not yet been sufficiently explored, and lying at too great a depth to affect the surface, it comes not within the limits of the present inquiry.

With the nature and cause of springs, that of bogs is intimately connected: for where springs breaking out in the manner above described, run over a flat surface of clay, and cannot get off with sufficient rapidity, or are not confined to a narrow channel, the superabundance of water must cause the dissolution of all the coarse vegetables it produces, which together with part of the natural soil itself, are formed into a peat earth, every year increasing in depth; and the extent of such bog, or morass, is according to the quantity of water, and to that of the flat ground on which it is formed.* The great object of Mr. Elkington's system, is that of draining such bogs, by cutting off entirely the source of the springs or subterraneous water which causes the wetness, either by flowing over the surface, or by its being long confined under it. If the springs have a natural outlet, the object of the drain is, to lower and enlarge it, which, by giving the water a more free and easy channel, will soon discharge and draw it off; or will reduce it to a level so far below the surface as to prevent its overflowing it.

Where the springs have no apparent outlet, but are either confined so far below the surface, as to injure it by constant moisture, or by oozing out imperceptibly through any small pores of the upper soil; the object of the drain is, to give a proper vent to that water, and to extract more quickly and more effectually what has before been pent up in the bosom of the soil. The object of the auger, which, in many instances is the *sine qua non* of the business, is simply to reach or *tap* the spring, and to give vent to the water thus pent up, when the depth of the rain does not reach it, where the level of the outlet will not admit its being cut to that depth, and where the expense of cutting so deep would be very great, and the execution of it very difficult.

According to these principles, this system of draining has been attended with extraordinary consequences in the course of Mr. Elkington's practice, which shall be more fully explained in the subsequent part of this report. By it, not only the land in the immediate vicinity of the drain, but also springs, wells and wet ground, at a considerable distance, have been made dry,

* Many and various are the conjectures respecting the origin of peat bogs; into the merits of which, it would be needless to inquire. Some suppose them to have been formed at the time of the general deluge from the huge trees that are found in them, and from a variety of other circumstances that led to that supposition; but it is not so much the subject of this treatise to explain their probable origin, as the means by which springs or other accumulated water may be most easily cut off, from preserving them in their present unproductive state.

with which there was no apparent communication.

As the whole depends upon the situation of the ground to be drained and the nature and inclination of the strata of which the adjacent country is composed; as much knowledge as possible must be obtained of these, before the proper course of a drain can be ascertained, or any specific rules given for its direction or execution. But all these circumstances will be more particularly explained in describing the parts of the operation with which they are connected.

From the American Farmer.

THE HESSIAN FLY.

This destructive insect is propagated from the eggs of the fly deposited on the grains of wheat when ripening; the truth of which I learned from actual observations. The fly may be seen by the middle of June, and from that time till wheat is cut, flying about and lighting upon ears of wheat. It deposits its eggs upon the outer ends of the grain, where they may be seen with a good microscope or optic glass—sometimes to the number of six or seven on one grain.

They remain there till the grain is sown.—The warmth necessary to produce vegetation is sufficient to animate the insect. It bursts its shell and enters the shoot, where it lies in a torpid state till the next spring, except in some instances when wheat is sown early, the fly commences its ravages in the fall; when this is discovered, the best method is to turn sheep upon it and pasture it short either in the fall or in the winter.

The most effectual way to check the propagation, is in preparing the seed before sown, which should be in the following manner:—Put your seed into a bogshead, tub or vat, and cover it with water; let it stand ten or twelve hours; then put off the water, put the wheat upon a barn floor and sprinkle lime over, and with a shovel mix it till it is well covered with lime. Let it remain in that state about twenty-four hours, and the eggs will be destroyed without any injury to the seed.

The following brief sketch of the observations which led to the discovery abovementioned, is given, that all who wish to be satisfied of the truth of it, may have ocular demonstration of the fact, if they will take the trouble. On viewing several grains of wheat in a microscope, something resembling the eggs of insects was observed upon them: twenty grains were selected with those appearances; they were put upon some raw cotton and a little earth in a tumbler of water, and observed every day; and on the day the grain opened and put forth its tender fibre, the insect burst from its shell and was not to be seen.

Ten days after, five of the grains with their roots and blades were taken from the glass and carefully examined. In three of them the insects were found. The other fifteen remained, and overspread the top of the glass. They were preserved till spring, when, on examining, every stalk had an insect in it, some two and one four.

Twenty other grains were selected, and the lime applied for twelve hours. It was then washed, and the color of the eggs was changed, and being put into a glass in like manner as the other, the wheat grew, but the eggs did not

roduce. The roots were transplanted, and grew well, and ten bushels of wheat limed as above, produced a good crop, while the neighboring fields suffered materially, and some were almost wholly destroyed by the fly.

A FARMER OF BUCKS COUNTY.

METEOROLOGY.

MR. SKINNER—As in our very dry seasons, the most of your readers are watching the winds and the signs, as they are termed, for rain, I have thought the following translation from a French work, called "Erreurs et Prejuges," might be acceptable to them.

"The Abbe Toaldo has demonstrated that in 106 new moons, 950 have been followed by remarkable changes of weather. There are then 950 chances to 156, or what is the same thing, six to one that a new moon will produce a change of weather. The other phases have less influence. The full moon gives but five chances to one. The first and last quarters give out two and a half to one."—*Anacr. Farmer.*

The useful properties of Charcoal, for sweetening the breath, cleaning the teeth, &c.

All sorts of glass vessels and other utensils may be purified from long retained smells of every kind, in the easiest and most perfect manner, by rinsing them out well with charcoal powder, after the grosser impurities have been scoured off with sand and potash. Rubbing the teeth, and washing out the mouth, with fine charcoal powder, will render the teeth beautifully white, and the breath perfectly sweet, where an offensive breath has been owing to a scorbutic disposition of the gums. Putrid water is immediately deprived of its offensive smell by charcoal.

To sweeten Meat, Fish, &c. that is tainted.

When meat, fish, &c. from intense heat, or long keeping, are likely to pass into a state of corruption, a simple and pure mode of keeping them sound and healthful is by putting a few pieces of charcoal, each the size of an egg, into the pot or saucepan, wherein the fish or flesh are to be boiled. Among others, an experiment of this kind was tried upon a turbot, which appeared to be too far gone to be eatable; the cook, as advised, put three or four pieces of charcoal, each the size of an egg, under the strainer, in the fish kettle; after boiling the proper time, the turbot came to table perfectly sweet and firm.

To purify fly-blown Meat.

It has been successfully proved, by many experiments, that meat entirely fly-blown, has been sufficiently purified to make good broth, and had not a disagreeable taste, by being previously put into a vessel containing a certain quantity of beer. The liquor will become tainted, and have a putrid smell.

USEFUL INVENTION.

Mr. Ralph Bulkley, of this city, has submitted to our inspection a specification, accompanied with a diagram, of an improvement in the manufacture of salt by evaporation. As he intends to obtain a patent for his invention in England, we are not at liberty to give a description of his plan. From an examination of his papers,

we are of opinion that the slow and tedious process of evaporation may be greatly accelerated by this improvement; and when we consider the vast quantities of salt which will hereafter be manufactured in the western counties of this State, and find a market thro' the medium of the Erie Canal, there can be no doubt but Mr. Bulkley's improvement in the manufacture of a staple commodity will be profitable to himself and beneficial to the public. It is said one of the proprietors of the extensive salt-works in Onondaga objected to the plan, *because it would make salt too cheap.* This objection would not weigh much with the great mass of the community.—*N. Y. Statesman.*

From Dr. Dwight's Travels.

On the 26th of September, three days after we passed through Portsmouth, on our journey in 1807, Colonel Walker of this town went out on a shooting excursion at 4 o'clock in the morning. For this purpose he embarked in a small boat with an intention of crossing the Piscataqua. When he had passed over about half the breadth of the river, a severe spasm seizing him in the head, sensibly affected his sight, but left him in full possession of his understanding. Apprehending that his situation was dangerous, he immediately turned his course back towards the Portsmouth shore; and as the flood tide, then flowing with great strength, forced him up the river, he steered towards a small wharf about three fourths of a mile above the town. As the boat came near the wharf, he laid the end of a paddle, which he held in his hand, upon a corner of the wharf, in order to lay the boat by its side. But the tide forced him away. He then attempted to reach a rocky point, a few rods above; but while he was in the act of making a stroke with his paddle, by some accident or other he missed the stroke, broke the paddle, and fell into the river where it was about ten feet deep. As soon as he rose above the surface he endeavored to swim; but being unskilled in the art, and encumbered with his clothes and boots, found himself unable. When he perceived that he must sink again, he turned his face towards the shore, designing when he should reach the bottom, to make his way to the spot where he hoped to land, by creeping. Accordingly as soon as he felt the bottom, he made the most vigorous exertions for this purpose; and, when he rose again, had advanced so far towards the shore as to be able to raise his head above the water while his feet touched the bottom. He then walked to the shore, which he reached about an hour before the sun rose. Hence he ascended the bank and walked up the river with the hope of finding some person who might assist him to recover his boat.

To this time Colonel Walker had retained full possession of his reason; but, as he supposed, he now fainted and fell, and had afterwards no distinct recollection of his circumstances until a little before noon on Monday the 28th. Still, he retained a remembrance, which he styles imperfect and visionary, of climbing over stone walls, groping in a cornfield, and endeavoring to reach his house before the news of taking up his boat should alarm his family. The course which he took to find his house he could not remember; and probably did not contrive nor distinguish. But he evidently spent the whole of Saturday, Sunday, and a part of

Monday, in attempting to find his way thither. The spasmodic affection which he mentions, the anxiety and flutter of spirits which he suffered during the while he was in and under the water, and the excessive fatigue occasioned by his extraordinary exertions to gain the shore, affected both his body and his mind in such a manner as to leave him absolutely bewildered. Two days he seems to have wandered in the cornfield and its environs; and two nights to have slept, if he slept at all, within the same narrow limits; and all this on ground which he must have familiarly known. After he had reached the town on Monday morning he made a variety of attempts by wandering through different part of it, as he afterwards remembered, to find the way to his own house; but failed in them all. About 5 o'clock, P. M. he was discovered and conducted home by some bakers in the neighborhood.

To this account, taken from Colonel Walker himself, Dr. Buckminster adds, "Upon coming to the bake house, to which he was probably directed by the light of the oven, Col. Walker asked the men whether they knew where he was, and who he was, and whether they could conduct him to his house. The bake house was in sight of the house of Col. Walker; and directly behind the church where he had worshipped for thirty years. After he came home he was put to bed. Within an hour I visited him and found him in a great degree of perturbation. He knew me however, as he had known his wife, and several of his family, at his first coming home. But he could not be convinced that it was Monday, and not Saturday morning. In my hearing he urged his wife to send a messenger unto a company of men who under his superintendence were working on a road, to tell them that he was unable to give them directions, and they must therefore disperse. Within a few days Col. Walker was so far recovered as to attend to his customary business, and not long after regained his usual health."

I have recited this story because it exhibits man in an attitude, which, so far as known, is absolutely new.

THE FARMER.

It does one's heart good to see a merry round-faced farmer. So independent, and yet so free from vanities, and pride. So rich, and yet so industrious—so patient and persevering in his calling, and yet so kind and social and obliging.—There are a thousand noble traits about him, which light up his character. He is generally hospitable—eat and drink with him and he won't set a mark on you, and sweat it out of you with double compound interest, as some I know will.—You are welcome. He will do you a kindness without expecting a return by way of compensation—it is not so with every body. He is generally more honest and sincere—less disposed to deal in low and underhand cunning, than many I could name. He gives to society its best support—is the firmest pillar that supports the edifice of government—he is the lord of nature. Look at him in his homespun and grey backs—gentlemen! laugh at him if you will—but believe me, he can laugh back, if he pleases.

The young oak, to be a useful tree, must not be reared in a hot-bed. Indulgence in the education of young people often spoils them.

Extracts from an able article which commences the last No. of the Massachusetts Agricultural Repository, entitled "Editorial Remarks, by John Lowell, one of the Editors."

"We are reproached with introducing articles which are above the capacity of common farmers. If it be intended as an intimation that we devote too large a proportion of this work to philosophical agriculture, we deny the fact; we always give the preference to homebred, practical essays and experiments. But we are not ready to admit that the introduction of rational and scientific speculations, such as those of Kirwan and Davy is inexpedient. Massachusetts has scarcely a town which does not furnish educated men. Knowledge must be first communicated to them, and from them it will inevitably reach their less informed neighbours. We have devoted many pages to horticulture, to the best mode of raising vegetables and fruits for the table, and if we wish to rise one grade above mere subsistence, we must continue so to do. We shall devote a considerable portion of our journal to horticulture, orchards, and fruits. Massachusetts has fourteen large towns containing a population of one hundred thousand souls. When men are thus collected in great masses they will require the innocent luxuries of the table, and there are none more so than vegetables and fruit. To supply this population of one hundred thousand souls, fifty thousand at least must be employed. Thus nearly one third of the state are interested in acquiring horticultural information, in being taught to manage their gardens. Would you always continue in your present state of ignorance on these subjects? Shall it be said that from June to September in our scorching summers, a traveller may traverse Massachusetts from Boston to Albany, and not be able to procure a plate of fruit, except wild strawberries, blackberries, and whortleberries, unless from the hospitality of private gentlemen? It is painful to reflect, that every cottager in Flanders, Germany, Holland and England, is better supplied with summer fruit than our most opulent farmers.

This almost utter neglect of cultivating summer and winter fruits, materially injures the health of our farmers. How mortifying to see the finest climate for the cultivation of the apple, so undervalued, that many of our farmers are obliged to slice up their summer fruit, and suspend it in the front of their houses to dry, in order that they may have a comparatively insipid and tasteless provision for winter! Yet such is too often, I may say too generally, the case.

The greatest benefit, however, which our farmers would derive from an attention to gardening, would be the acquisition of habits of care and neatness, which would be transferred to their farms.

If each farmer would devote two acres to a garden, and to fine fruits, he would be compelled to be more careful in trimming his trees, in sowing his seeds, in keeping them free from weeds. The habits thus formed would extend throughout his estate. We see this effect in farmers near the great towns; they learn to be their own grafters, and pruners, and their care of their general culture keeps pace with their progress in gardening.

But perhaps it will be replied, we cannot afford the time; it will be too expensive. What! cannot our farmers afford as much time as the

common labourers of other countries who work from sunrise to sunset for from thirty to forty cents per day? No, this is not the real difficulty. It is that the ease of getting an ample support in this country relaxes our exertions. But the progress of manufactures and population will soon bring about other habits, and we hope within a few years to see nurseries of the cherry, and the peach, and the pear, as well as of the apple, in all country towns,—though we think, not only that the last is far the most important, but that it is with that our internal improvements must commence. Till every farmer can lay up his ten barrels of excellent winter apples for his own use, we shall not expect much progress in other branches of gardening."

From the Acadian (Halifax) Recorder of June 21.

DRILLING MATCH.

On Friday last, the 13th inst. this match took place at Willowpark. At 10 o'clock the ploughmen began to muster, and by half past 11 all the prior arrangements were completed by the committee. The length of the field being 80 rods, a breadth of 17½ feet sufficient for seven drills, was measured off for each competitor.—Before starting, H. Yeomans, Esq. gave the six candidates who presented themselves, an opportunity of drawing their respective tickets—marked in running numbers, and by which their lots was to be ascertained. They then proceeded to adjust the poles to their own satisfaction, which had been previously set up under the inspection of J. Albro, Esq. the other gentleman of the committee. The rules prescribed to the workmen were simply these; to draw on each lot seven drills at two feet and a half apart, from centre to centre—to sink the plough to the depth of from 6 to 7 inches—and lastly, to execute with all dispatch, as time would be taken into account by the judges, all other circumstances being equal. Mr. Henry Oliver performed his task with the greatest expedition, being finished in 1 hour 20 minutes, which was at the rate of an acre in 2 hours and a half; and the longest time taken by any of the others was 1 hour 55 min.—equal to 3 hours 34½ min. to the acre.

Lot 1 was drilled in	1 hour 25 minutes,
2 do. do.	1 do. 50 do.
3 do. do.	1 do. 55 do.
4 do. do.	1 do. 50 do.
5 do. do.	1 do. 20 do.
6 do. do.	1 do. 52 do.

This table is exhibited, and these facts mentioned, to bear witness of the rapidity and execution of which the drill system is susceptible. Three hours may be assumed as a fair medium in such a field for preparing an acre for the reception of the manure and the potatoe sets, and a similar portion of time will more than suffice to cover them in. According to this way of reckoning, it will only take six hours to put an acre of potatoes into drills; and allowing afterwards three separate hoeings with the proper machinery at the rate of three hours each, altogether 15 hours, will be requisite to cultivate an acre according to the new plan. During the one half of this time a pair of horses, and during the other half a single horse only will be needed. There can be no comparison, on the score of cheapness, between this and the old manner of raising potatoes with the hand

hoe; keeping out of view the more entire pulverization, and the more thorough destruction of weeds effected by the implements.

At half past one o'clock all the ploughs were stopt as a preliminary to Messrs. Anderson and Blayse coming on the field as judges, to examine the work and determine the prizes. By 2 o'clock they gave in their report, which was immediately handed to his Excellency the Governor, that he might deliver the medals and money to the victors.

The 1st prize, No. 6, to Mr. John Baird, servant to W. Lawson, Esq. a silver medal and	£2 10 0
The 2d prize, No. 1, to Mr. Isaac Pringle, servant to Messrs. Tobins, a silver medal and	2 00 0
The 3d prize, No. 2, to Mr. John Cline, Jr. a silver medal and	1 10 0

His Excellency then called for the Judges to thank them for their attention, adding that he was satisfied they had determined according to the best of their ability, and he trusted their decision would be generally acceptable.

On this drilling match one observation deserves to be recorded. Three years ago when this system of competition was first proposed, the system of drilling was in its infancy; the workmen, with the exception of those trained in the mother country, were strikingly imperfect. The method of drawing straight lines by the erection of poles was unknown to most of the natives of the country who had been accustomed to the use of the plough from their youth, and who reckoned themselves tolerable proficient. The first drilling match therefore on the peninsula gave evidence of this low state of the art, among our native ploughman. A visible improvement was effected in the second, but in the present one, which is the third, two Nova Scotians handled their implements with the skill of a master, and one of them was fortunate enough to carry off a prize.

In fact, the very worst work done on last Friday was equal to the best of any of the former exhibitions; and the whole field, consisting of ten acres, 80 rods long, and 20 wide, and containing in all 128 drills, is a very creditable and even highly excellent specimen of what can be accomplished. Eight different ploughmen have assisted in completing it, and so straight are the rows and equidistant, that it appears to be laid off rather by a garden line, than by the free, easy and unrestricted motion of the plough under the guidance of the eye. The Lothians of Scotland, where all the processes of tillage are carried to the highest acme of perfection, can seldom present a finer and more finished display of drilling; and the curious in the art would do well to inspect the field in question, as redounding much to the honor of the performers.

The minor societies should direct a part of their attention to this subject. They have, with a commendable zeal, instituted ploughing Matches every where, and have reported favorably of the result; it is now high time, that drilling be more thoroughly understood in the country; for it is an incontestable fact, that no man can be a first rate ploughman, who is ignorant of this other art; nay more, that no field can be properly and skilfully tilled, unless the ridges be first marked off by parallel lines at given distances, which lines must be drawn by

the aid of poles on the same general principles. On all these accounts, it is highly deserving of cultivation, consequently of the patronage of the societies. Let them give it countenance, and in a short time the youths of the country will be able to enter the lists and stand a competition with the drillers of G. Britain who are amongst them.

JOHN YOUNG, *Secretary.*

POT AND PEARL ASHES.

In one of the late numbers of Tilloch's Philosophical Magazine, is the following paragraph, announcing a discovery, which, if real, may have a serious effect on the commerce and pursuits of many in the United States.

"I observed, says he, many years ago, that I expected to see the powers of galvanism, in one shape or other, a necessary appendage to the apparatus of every bleach field. Subsequently, I stated that I considered all alkalies, alkaline earths and substances, were modifications of the same base, and that, one day I hoped to see our potash taken from the *lime rock* of our own soil, instead of deslagrating the woods of America. After many varied experiments, I have completely succeeded, and have now rendered myself and my country, so far as regards bleaching, perfectly independent of every foreign aid, and at an expense comparatively trifling."

GLUE.

It has been erroneously stated in the public papers, that India rubber will make good glue; but it will never harden. For a strong, firm, cheap glue, nothing has yet been discovered superior to the best kind of that which is in general use; and for a fine, clear, and transparent kind, which will even unite glass so as to render the fracture almost imperceptible, nothing is equal to isinglass boiled in spirits of wine.

Amer. Farmer.

NEW ENGLAND FARMER.

SATURDAY, JULY 26, 1823.

Farmer's and Gardener's Remembrancer.

JULY.

STUELE FIELDS.—As soon as you have completed your harvesting, plough your stubble fields. You may plough in your stubble, or you may burn it off and then plough the land. The last mode of proceeding has been recommended by English writers. They say that the ashes affords a good dressing to the soil, the heat destroys insects, and the fire, by burning the stubble, removes an impediment to the plough. We have heretofore taken notice of an experiment, which proved the advantages of this mode of proceeding, in our first No. page 6. But as we have readers, who, probably, have not seen or taken particular notice of that article, we will repeat the substance of it. Mr. W. Curtis, of Lynn, Norfolk, found very beneficial effects from burning the stubble of oats, which was left eighteen inches high for that purpose. On a field broken up from old pasture the same year, he afterwards sowed wheat and oats in succession on the same ground, the stubble of both which was burned in the same manner. The ashes, in every case, were ploughed in, to a small depth, and the verges of the fields mowed to prevent accidents. After the third crop of corn [grain] all of which was abundant and re-

markably free from weeds, the field was laid down with clover and other grass seeds, and the ensuing crops proved infinitely finer than those before the ground was broken up.

Another piece of ground was cropped for three successive years in the same manner as the first, to which it was similar in every respect of soil, aspect, and previous management, but in which the stubble was ploughed in, instead of being burned; the produce of each crop on it was much inferior to that of the first experiment, and the weeds increased so greatly, that in laying it down to grass, they quite overpowered the grass seeds, so much so, that it was necessary to re-sow it; and ever after, while Mr. Curtis held it, the grass and hay produced were coarse and full of weeds; and consequently inferior both in value and quantity to those of the other field, on which the stubble had been burned.

It may, perhaps, be well in burning stubble fields, not only to mow the verges or borders of the fields, and rake the proceeds inwards towards the centre of the fields, but to trace a furrow round the whole, and set your fire inside of the furrow. A calm afternoon, towards sunset, should be preferred, when the wind will not be apt to rise, and cause damage by the fire.

We do not learn what was the nature of the soil on which the experiments of Mr. Curtis were made; and should not, therefore, recommend a similar practice on all soils, for general adoption, at least without further trials on a small scale. If the crop of grain was on a stiff stony soil, or on land which presents material impediments to the plough, the stubble should in some way be got rid of, before any attempt is made to plough the field. Dr. Deane advised to dispose of the stubble on stiff lands by mowing it, and carrying it to the farm yard. For "such land, when ploughed, is not apt to cover the stubble so closely as to cause it speedily to putrefy. It will often lie in a sound unaltered state for a long time, and be very troublesome at the next ploughing. But if the ground should be seeded after one ploughing, it might be expected the stubble would render the land so hollow and cavernous as to starve many of the plants that grow on the surface. At the same time these hollows would be receptacles for noxious insects and vermin. But in a light sandy soil, the stubble is soon reduced to a condition to nourish vegetables." In such a soil it would, therefore, probably be best to plough in the stubble as soon as possible after harvest, before the sun and wind has robbed it of all its juices, and taken away its power to enrich the soil.

It has been recommended previous to ploughing in stubble to pass a heavy roller over the field to lay the stubble flat on the surface. If this expedient is adopted, great care should be taken to pass the roller the same way the plough is to go. Others advise to annex a small roller to the fore end of the plough beam. A foot piece, or piece of timber, with a mortice in it, through which the fore end of the plough beam is passed, so that the piece of timber stands perpendicular, and the lower end scrapes along on the ground, may be so contrived as to regulate the depth of ploughing, make it uniform, and at the same time greatly assist in clearing the way before the coulter. But we believe the most effectual contrivance for preventing a plough from clogging, is what is called

a "Plough Cleaner," invented by Mr. Joseph Kersey, of Pennsylvania, of which we have given a drawing and description in page 107 of our paper. It consists of a piece of timber, pinned to the plough beam, just before the coulter, with a staff or handle attached to its upper end, so placed as to come within reach of the ploughman, who by pulling the handle, turns the piece of timber on the pin, and causes the lower end to scrape the ground just before the coulter, and thus remove stubble, weeds, and other obstacles to smooth ploughing. This is as simple as it is useful, and has, we are told, been used for several years in Pennsylvania, and found "very convenient."

HARROW, ROLL, AND TOP DRESS YOUR MOWING GROUND.—Mowing land, after it has been laid down a few years to grass, becomes bound, or too thickly swarded, and will produce but little. It may not always be convenient, and is often not advisable, to break it up. In such case, after a plentiful rain, go over your mowing ground with a scarifier, spiking roller, or heavy loaded harrow. Then dress it with some kind of compost in which earth is a principal ingredient. Next pass a heavy roller over the land, unless it be uneven or stony, in which a roller would prove of little or no benefit. Half rotted strawy manure, spread on grass ground is of little service, and the dung of swine or of horses thus applied, will be dried up by the sun and air with but little benefit to the soil or to the crop. If you have on your premises a pond or mud hole, the bed of which is partly uncovered in a dry season, you may take the first leisure time after haying and harvesting, either to cart it into your barn yard, or spread it on your grass ground. It has been recommended by writers, as well as practical farmers, to apply your manure to grass land, especially where a second crop is expected, immediately after mowing the first crop. But in such case it will not answer a good purpose to make use of unmixed dung, or what is called putrescent manure of any kind, as the sun will not only dry it up, but scorch the grass. Compost manure, ashes, soot, &c. loose little if any thing by exposure to the air, but spreading unmixed dung on grass land is a very extravagant way of using it.

SAVE YOUR SUMMER MANURE.—Wherever your cattle are confined every night, as is advisable, it will be but little labor to shovel the manure every morning into a heap or heaps, which should be immediately covered with fresh earth, peat, or some other substance which will prevent its being dried up by the sun, or washed away by the rain. If you keep a horse or horses in a stable, or soil your cattle, it will often pay for the labor to mix earth every day or two with the fresh manure, which will prevent any part of it from being lost by evaporation. Place a few loads of earth near the place where your stables are emptied, or in the enclosure where your cattle are yarded, and from time to time mix such earth with the fresh dung, which will prevent its being weakened, dried, or washed away. If you keep your swine confined in pens, you should be careful as you empty their styes to mix earth with the manure thus obtained. Horse manure, more particularly, will heat, or become "fire fanged," as it is called, without such precaution. You may have first a layer of earth, then of manure, and then again of earth. Sir John Sinclair says,

"In farm yards, where there is an opportunity of making cattle, horse, and hog dung, it is always to be preferred, as the one corrects the defects of the other, and prevents the fermenting process from going too rapidly forward.—These substances should be laid *stratum super stratum*, [one layer above another] which can easily be done every day, when the stables, cow houses, and hog styes are cleaned out. If a little earth can be put between each stratum, so much the better." Even in your pastures, if you have plenty of help, or boys who run the risk of being idle, it will be best, especially near watering places, places where your cattle are salted, &c. to gather frequently their droppings into little heaps, and cover them with earth, or sods of grass, with the grass side down. The whole may be carted to your large manure heaps, compost beds, stercoraries, &c. or applied, if sufficiently rotted or fermented, to your grass ground, as a top dressing in autumn. This would be what we call *neat farming*, and a *slovenly farmer* will not thrive.

DO NOT FORGET TO GIVE SALT TO YOUR CATTLE, HORSES AND SHEEP.—One would think that foreign writers had not, till within a few years, been aware of the use of salt as an article in the diet of domestic animals. Sir John Sinclair (Code of Agriculture, page 56) mentions it as something remarkable, that "in America, salt is given to cows, oxen, horses and to sheep, but not to pigs." He also says that "lumps of rock salt might be kept in troughs, protected against the effects of rain in the fields, by covers, but accessible to sheep or cattle." It appears that a patent has been obtained by Messrs. Martin and Co. in England, for a peculiar mode of preparing salt in large cakes, by which it is rendered less liable to melt and waste by rain than common salt. It is recommended to allow calves, especially, to have constant access to fine salt, to be kept in a trough near them, separate from their other food. It is said that it prevents and cures the rot and flukes in sheep; and prevents injury to stock by moist feed. Likewise, when horses are afflicted with salivation, or a running of saliva from their mouths, salt will mitigate if not cure their complaint. Some writers say that twice a week during the summer is often enough to give salt to any domestic animals. Sir John Sinclair asserts that "the quantity given in spring, summer, and autumn, to oxen and milch cows, is about a quart to each every two or three days, in very hot weather. In cooler seasons it is only given once a week." We are inclined to think this a liberal allowance. But if salt is kept in troughs under cover, where they can have free access to it, we do not believe they would be apt to consume more than would prove for their benefit.

LATE PEAS.—We think it very possible that peas may be raised, by proper management, during the whole summer, and till severe frosts commence in autumn. The evil, which has usually attended late sown peas, and rendered it impracticable to raise them to much advantage after about mid-summer, has been their liability to *mildew* or *rust*. "Both in Europe and America, the pea sowed for an autumnal crop, is generally, we might say almost universally, subject to mildew, so that we cannot enjoy this delicious green vegetable for more than two months in the year." A very valuable paper "On the prevention of Mildew, in particu-

lar cases: by Thomas Andrew Knight, Esq'r. F. R. S. &c. &c. President of the London Horticultural Society," was published in London, and re-published in the last No. of the Massachusetts Agricultural Journal. The author of this paper adopts the opinion of the venerable President of the Royal Society (the late Sir Joseph Banks) that mildew is a species of plant, which botanists call fungus, and which grows on wheat, peas, some sorts of grass, &c. and robs them of a part of their nourishment. That this plant has its seeds, like other plants, which seeds are excessively light and capable of being dispersed every where by the wind. The author then proceeds to point out the means by which the injurious effects of the common white mildew may be in particular cases prevented, as follows:

"The secondary, and immediate causes of this disease have long appeared to me to be the want of a sufficient supply of moisture from the soil, with excess of humidity in the air, particularly if the plants be exposed to a temperature below that to which they have been accustomed. If damp and cold weather in July succeed that which is warm and bright, without sufficient rain to moisten the ground to some depth, the wheat crop is generally injured by mildew. I suspect that in such cases, an injurious absorption of moisture by the leaves and stems of the wheat plants takes place; and I have proved, that under similar circumstances much water will be absorbed by the leaves of trees, and carried *downwards through their alburnous substance*; though it is certainly through *this substance* that the sap *rises* under other circumstances. If a branch be taken from a tree when its leaves are mature, and *one leaf* be kept constantly wet, that leaf will absorb moisture, and supply another leaf below it upon the branch, even though all communication between them through the *bark* be intersected; and if a similar absorption takes place in the straws of wheat or the stems of other plants, and a retrograde motion of the fluids be produced, I conceive that the ascent of the true sap, or organizable matter, into the seed vessels, must be retarded, and that it may become the food of the parasitical plants, which then only may grow luxuriant and injurious.

"This view of the subject, whether true or false, led me to the following method of cultivating the pea, late in autumn, by which my table has been as abundantly supplied during the months of September and October, as in June or July, and my plants have been as nearly free from *mildew*.

"The ground is dug in the usual way, and the spaces, which will be occupied by the future rows are well soaked with water; the mould upon each side is then collected so as to form ridges seven or eight inches above the previous level of the ground, and then are well watered. After which, the seeds are sowed in single rows along the tops of the ridges. The plants very soon appear above the surface, and grow with much vigor, owing to the great depth of the soil and abundant moisture. Water is given rather profusely once a week, or nine days, even if the weather proves showery.—Under this mode of management the plants will remain perfectly green and luxuriant till the young blossoms and the seed vessels are destroyed by frost, and their produce will retain

its proper flavor which is always taken away by mildew. The pea which I have planted for autumnal crops is a very large kind, of which the seeds are much shrivelled, and which grows very high. It is now very common in the shops of London, and my name has been, I believe, generally attached to it. [It is well known by us by the same name, and is an excellent late variety.—*Ed. Ag. Journal.*] I prefer this variety, because it is more sweet than any other, and retains its flavor better late in autumn. It is my custom to sow some of it every ten days, and I rarely ever fail of having my table supplied till the end of October."

CLOSE OF THE FIRST VOLUME.

The present number completes the first volume of the New England Farmer, and with the next we shall commence a second volume, with renovated exertions, and hopes invigorated by some degree of apparent success, which has attended our past labors. We are told that our efforts have been in some measure acceptable, and the cheering sound of "well done," will excite us to summon all our powers, and put all our faculties in requisition to render ourselves still more "useful to the farming interest."—New sources of agricultural information are daily unfolding before us, and all that our industry can accomplish, aided by an undissembled fondness for the science and predilection for the pursuits of the art which is paramount to all other arts, we unhesitatingly promise to perform. The Editor hopes and expects to be able hereafter, as long as the patronage of the public and his own capacity for intellectual toil shall continue, to devote himself *more entirely* to the object of rendering his paper worthy of the approbation of the enlightened cultivator, than has hitherto been practicable. He proposes to explore new fields of agricultural information, with an inquisitive, if not with a discerning eye, and the result of his researches will be faithfully submitted to the consideration of that greatest and most important class in the community, to whose interests the New England Farmer is principally devoted. As he continues his *work* he promises every endeavor to become a better *workman*, and hopes eventually to become a *profitable*, as he proposes to be a diligent laborer in the *great field of Agriculture*.

We respectfully solicit the continuance of the favors of correspondents, and return our sincere thanks for such as we have already received. We wish to collect for the use of the public, *the fruits of actual experience*. Theories and ingenious speculations *may be useful*, but facts judiciously selected and accurately reported *must be useful*. We likewise are very solicitous not to publish any thing which may *mislead* the practical farmer. Our intentions are upright; but "to err is human." For instance, should the Editor, or any of his correspondents, recommend any plant, or any process of cultivation, which any of our friends, who are better in-

formed on the subject, know or believe not to be useful, it might be rendering a service to the public, and would certainly be very acceptable to us, to point out our mistake, which shall be promptly and thankfully corrected.

The Index to the first volume will be published in a few days, and immediately forwarded to those who have taken all the numbers.

A few of our subscribers have requested to have the paper discontinued at the close of the first volume, who have neglected to pay for it; but it is our invariable rule not to discontinue any paper until all arrearages are paid.

INFORMATION WANTED.

A friend of the Editor is solicitous to be informed at what time in the year it would be most advisable to cut *chestnut wood*, designed for fencing, in order that he timber, and especially that part of the posts, which is set in the ground, may possess the greatest durability. Mr. Preston of Pennsylvania, in his valuable communication published in our paper, No. 45, page 354, estimates that hemlock cut and peeled at the season of its peeling the second time, or in October, will be the most durable. Perhaps he may be able, and will be so good as to inform whether the same rule will apply to chestnut. And it may be that some other gentlemen friendly to the farming interest, will favor us with their experience or opinions on this subject, which would be thankfully received, and may prove beneficial to the community.

FOREIGN.

The last arrivals from Europe have brought advices from London to the 8th, Lisbon the 13th, and Paris the 5th of June. From these it should seem that the French have apparently succeeded in re-establishing the ancient order of things in Spain, and the hopes of the Constitutionalists are blasted, and the fears of the friends of liberty realized. We have another "confirmation strong" that an ignorant and superstitious people cannot be a free people. That knowledge is necessary for the enjoyment of rational liberty; and a tiger loosed from his chains is not more incapable of self-government than the highest and the lowest orders of the people in Spain. The middle class appears to want union, number, energy, courage, and perseverance, and this attempt to shake off their shackles, will, we fear, end in the addition of heavier and stronger encumbrances.

Should we attempt to give details of what are styled "War operations in Spain," we should fill our columns with petty affairs of posts and skirmishes, which end in nothing but submission to the will of dictators, who have succeeded in dragging Spain into that despotism which she would have escaped if she had not merited it. It was not the will of the Spaniards to be free, and therefore they are not free. They court their chains, and love darkness better than light; they must therefore remain the unpitied victims of tyranny and bigotry, and will probably sink the deeper in the mire of despotism in consequence of their late feeble and ineffectual struggles to place themselves on high ground, and gain a respectable standing among powerful and civilized nations.

On the 29th of May, the French army appeared before Madrid, in consequence of a previous convention that it should enter the city. But this was not effected peaceably as had been anticipated. The French account states that the men, women, and children, who went to meet and welcome General Bessieres, the Royalist commander, were fired upon from two masked cannon loaded with grape, and were charged by the Constitutional cavalry, when nearly three hundred of these poor people, composing fathers, mothers, brothers and sisters, many of them mere children, were massacred without pity, &c. The Spanish accounts make the Royalists the aggressors, and tell us that General Bessieres declared that he was accustomed to victory, and determined to enter Madrid, even if he must do it by main force. A general action ensued, in which the Spaniards lost 80 killed, and 700 made prisoners and wounded.

The Spanish forces appear to be scattered like flocks of sheep without shepherds. The Spanish commanders have as little efficiency or concert as so many *bell wethers*. The new Spanish government is organized under French auspices at Madrid, has passed several decrees, and appointed ambassadors to the courts of Europe.—The road to Seville, the new capital, appears to lie open to the march of the French armies, and what is called the cause of legitimacy seems every where to triumph.

Portugal.—In this country a counter-revolution commenced on the 27th of May, under a certain General named Sepulveda. The young Prince, at the head of a regiment of troops, marched into Lisbon on the 3d of June, and was welcomed by the people with the cry of "long live the King." The Cortes were dissolved and fled. The next day the King denounced the Cortes as a set of usurpers and hypocrites, and proclaimed their dissolution as a body. He likewise issued a proclamation announcing the restoration of the Ancient Monarchy. This counter-revolution suits the highest and lowest classes of the people, viz. the froth and the dregs of the community. But the middling class, the farmers, and others of the more substantial part of society, are greatly dissatisfied. Several of the most active members of the Cortes have embarked for England.

An arrival at New York from Gibraltar, has brought papers from the last mentioned place to the 7th June. These furnish articles from Seville of somewhat later date than had been received when the above was written. There are some glimmerings of hope for the Spaniards, derived from this news, which, perhaps, may brighten into sunshine. The French and Spaniards have had an encounter at Talavera, in which the latter conducted with gallantry, and gave their opponents a sample of the times, when Bonaparte was baffled, and his troops taught "the manual exercise of heels." It was, however, but a *brush*. The loss of the Spaniards was "confined to 10 or 12 wounded," and that of the French was said to be greater, but probably did not amount to any considerable number.

DOMESTIC.

The Sea Serpent again exhibited himself on the 12th inst. near Nahant, with his usual bunches and other appendages and appurtenances "resembling a row of porpoises, proceeding with an undulating motion like that of a caterpillar," &c. He was seen, and his appearance attested to by Francis Johnson, Jr. Mr. J.'s testimony on this subject was given in presence of some very respectable gentlemen in this vicinity, viz. H. A. S. Dearborn, Nathaniel Amory, Sidney Bartlett, Richard D. Harris, Thomas Whitmore and Russel Jarvis; and these gentlemen have published a certificate, that from their knowledge of the character of Mr. Johnson, they have no doubt of his veracity. Serpents of this species are no strangers on the coast of Norway. The old editions of Guthrie's Geography mention their appearance, as well as many other and later authors, whose testimony, in corroboration with what has been frequently seen off our own coast, must render the existence of this species of monster no longer doubtful.

Thunder Storm.—On the 11th inst. Northampton and the towns in its vicinity were visited with a violent storm of thunder and lightning. The house of Mr. A. Wright, of Westhampton, was struck, and the timbers, partitions, 100 panes of glass, and much of the furniture were broken. There were ten persons in the house, but providentially only one, a lad, was injured. He was knocked down, had his hat rent, his jacket and shirt torn, and his flesh singed; but has now the appearance of recovery. A house in Chesterfield was struck in the same storm, and much injured.

Fires.—A fire took place in Philadelphia on the 17th inst. which destroyed eleven two-story frame houses, with all the back buildings, stables and sheds in Calow hill and Kunkle streets. A paper ware house, owned by the Bank of North America, a tobacconist factory, a chocolate factory, and a large tavern, were among the buildings consumed.

A range of buildings in Albany was destroyed by fire on the 13th inst. Loss estimated at from 12 to 15,000 dollars.

AGRICULTURAL PREMIUM, FOR THE BEST MANAGED FARM.

At a meeting of the Board of Trustees of the Massachusetts Society for promoting Agriculture, held at the President's, 12th July, 1823, it was

Voted, That this Society will grant as a premium to the owner of the best cultivated Farm within the precincts of the several Agricultural Societies of the State, the sum of Thirty Dollars each, in addition to the premium which may have been awarded the claimant by the local Society; and that it will accept, as full evidence of the merit of the claimant, a certificate signed by the President of the local Society, certifying that such person was declared by the Society or their Trustees, entitled to the premium within that district;—that the applicant shall, however, in all cases, be held to exhibit to this Society, a statement of the extent of his farm; the state and plan of his farming buildings; his mode of collecting and managing manure; the number of domestic animals usually supported thereon; the quantity and quality of land under cultivation, and his usual mode of culture, as well as the average amount of his crops, of all sorts.

A copy from the record,

BENJ. GUILD, Assistant Rec'g Sec'y.

July 18, 1823.

JOE PRINTING neatly executed at the Farmer Office, on reasonable terms.

PRICES OF COUNTRY PRODUCE, &c.

[Revised and corrected every Friday.]

		FROM	TO
		D. C.	D. C.
ASHES, pot, 1st qual. . . .	ton.	135 00	
pearl do.		145 00	
BEANS, white,	bush	90	1 00
BEEF, mess, 200 cwt. . . .	bbl.	9 00	9 50
" No 1,		8 25	8 50
" No 2,		6 75	7 00
BUTTER, inspect. 1st qual. .	lb.	11	12
" 2d qual.		9	10
small kegs, family, . .		13	14
CHEESE, new milk		7	8
FLAX		8	9
FLAX SEED	bush	75	80
FLOUR, Baltimore, superfine,	bbl.	7 75	7 87
Goessee		7 75	7 87
Rye, best		4 50	4 75
GRAIN, Rye	bush	68	70
Corn		58	60
Barley		68	70
Oats		35	37
HOGS' LARD, 1st sort . . .	lb.	10	11
HOPS, No 1,		8	12
LIME,	cask	1 25	1 37
OIL, Linseed, American . .	gal.	65	00
PLASTER PARIS	ton.	2 75	3 00
PORK, Navy Mess	bbl.	12 00	12 50
Bone Middlings		14 50	15 00
Cargo, No 1,		12 00	12 50
Cargo, No 2,		11 00	11 50
SEEDS, Herd's Grass . . .	hush	2 00	
Clover	lb.	8	9
WOOL, Merino, full blood, washed		55	60
do do unwashed . . .		46	50
do 3-4 washed . . .		50	55
do 1-2 do		45	47
Native		37	40
Pulled, Lamb's, 1st sort		55	60
do Spinning, 1st sort		50	55
PROVISION MARKET.			
BEEF, best pieces	lb.	8	10
PORK, fresh		7	8
VEAL,		6	8
LAMB, per quarter		30	45
POULTRY,		10	14
BUTTER, keg & tub		13	14
lump, best		18	20
EGGS,	doz.	14	15
MEAL, Rye,	bush	75	80
Indian,		75	
POTATOES,		45	47
CIDER, liquor,	bbl.	1 50	2 25
HAY, best,	ton.	18 00	22 00

SONNET.

I dreamed—I saw a little rosy child,
 With flaxen ringlets, in a garden playing;
 Now stooping here, and then afar off straying,
 As flower or butterfly his feet beguiled.
 'Twas chang'd; one summer's day I stepp'd aside,
 To let him pass; his face had manhood's seeming,
 And that full eye of blue was fondly beaming
 On a fair maiden, whom he call'd "his bride!"
 Once more; 'twas evening, and the cheerful fire
 I saw a group of youthful forms surrounding,
 The room with harmless pleasantry resounding;
 And in the midst I marked the smiling Sire.—
 The heavens were clouded!—and I heard the tone
 Of a slow moving bell—the white hair'd man was gone!

BERNARD BARTON,

Alias the Quaker Poet, with whose charming productions our columns have been frequently enriched, is not one who mechanically strings verses together, but a writer of genuine poetry. And however paradoxical it may appear to those who can relish nothing but what savors of titled rank, it is nevertheless true that Barton has presented the literary world with some gems from Parnassus which sparkle with a brilliancy not often surpassed. In speaking of the poets of the present day, in "A Sketch of Old England, by a New England Man," the author of that most excellent work, which ought to be read by every American, says—

"There is one modest bard here, that deserves to be mentioned as a novelty. I mean the Quaker, Bernard Barton, who has been moved lately by the spirit of poetry. As might be expected, he writes with sweetness, simplicity and good sense; the two latter very rare commodities at present in poetry, when the bards of England go abroad to write, and bring home all the fervid heats of a tropical sun, backed by the scorching sirocco of the desert, to excite us into a proper degree of poetical enthusiasm.—Friend Bernard's poetry is tender without exaggeration, and simple without childishness. His Pegasus is neither an elephant, a camel, nor a dromedary, but a horse of good pace and habits. In a better age of poetry he would be more admired. As it is, his Muse wants a few of the buttons of the honourable band of gentlemen pensioners to make her shine, and is, moreover, rather *drab-colored* for the present flashy taste."

PUNCTUALITY.

President Washington was the most punctual man in the observance of appointments, ever known to the writer. He delivered his communications to Congress, at the opening of each session, in person. He always appointed the hour of twelve at noon for this purpose: and he never failed to enter the hall of Congress while the State-house clock was striking the hour. His invitations to dinner were always given for four o'clock, P. M. He allowed five minutes for the variation of time-pieces; and he waited no longer for any one. Certain lagging members of Congress sometimes come in when dinner was nearly half over. The writer has heard the President say to them, with a smile, "Gentlemen, we are too punctual for you—I have a cook who never asks whether the company has come, but whether the hour has come."

From the N. York Medical and Physical Journal.

PIGEONS.

Extract from "Remarks on the Columba Migratoria, or Passenger Pigeon," by the Hon. De Witt Clinton.

The Columba Migratoria, or Passenger Pigeon, is a bird peculiar to North America. It extends its migrations from Hudson's bay to the gulf of Mexico, and it occupies occasionally that vast region which reaches from the gulf of St. Lawrence to the Rocky Mountains. Its change of residence is not owing to the influence of heat or cold, of rain or drought, but is made with a view to the acquisition of food. The vast flocks in which this bird congregates, are unequalled as to extent. La Hontan says that the bishop of Canada has been forced to exorcise them oftener than once, on account of the damage they do to the products of the earth.—Weld, an English traveller, speaks of a flock eighty miles long, flying over lake Ontario; and Wilson, the great ornithologist, estimates one seen in Kentucky 240 miles long, a mile broad, and containing 2,230,272,000 pigeons, which would consume on a moderate allowance 17,424,000 bushels of mast, [beech nuts and acorns] a day.

The gregarious habits and vast flocks of this bird will of course occasion a correspondent consumption of food; and it is therefore compelled to be constantly erratic, and to be among the feathered race what the nomades [wandering shepherds] are among mankind. The rapidity of its flight is superior to that of the carrier pigeon, which has been known to pass from St. Edmundsbury to London in two hours and a half. At this rate, the Passenger Pigeon can travel seven hundred miles in twenty-four hours; and at the rate of a mile a minute, the same distance in less than twelve hours;—and this velocity may account for undigested rice being found in its craw six hundred miles from the rice fields: but as this has been observed in the spring of the year, it must have been derived in that case from the gleanings of a former season, or procured at a greater distance, or confounded with the zizania aquatica of the western waters.—The favorite food of this bird is the beech nut, and it prefers to establish its roosting quarters and its breeding place within the reach of this aliment. It also subsists on the acorn, chesnut, wild cherry, seeds of the red maple, and of some weeds, poke, and other kinds of berry, buckwheat, and the principal cerealia [grain.] It resorts to the sea-shore and the salines of the west for salt, and it is frequently seen at the mineral springs of Saratoga enjoying the luxury of the waters.

MISAPPLICATION.

The following very good advice is extracted from Cicero's celebrated treatise De Officiis.

Two faults are to be avoided in the truly honorable and natural investigation of knowledge and science. The first is, that we should not take hypothesis for facts, and inconsiderately give them our assent. The other is, that many bestow too great labor on points obscure and difficult, and at the same time unnecessary. Which faults avoided, whatever diligence and care may be bestowed on subjects honorable and worth acquiring, will meet with just commendation.

RUINS OF BALBEC.

Dr. Richardson, who visited the ruins of the magnificent temple at Balbec, in Syria, in his late travels, is of opinion that this was first built by Solomon, and rebuilt by the Romans. The workmanship of the bottom stones is similar to that of some that were cut at Jerusalem in the time of that king. In the walls of this temple are some of the heaviest stones that were ever moved by human hands or human machinery.—Dr. R. measured one stone which was 67 feet long, 14 broad, and 9 feet thick; two others were nearly of the same dimensions, and the three were placed more than 20 feet above the foundation. In no other building on earth can such ponderous masses be found. This temple has been a place both of pagan and christian worship. The ruins are about 40 miles north of Damascus.

"I think there are two periods in the life of man in which the evening hour is peculiarly interesting—in youth and in old age. In youth we love it for its mellow moonlight, its million stars, its then rich and soothing shades, its still serenity; amid these we can commune with our loves, or twine the wreaths of friendship, while there is none to bear us witness but the heavens and the spirits that hold their endless sabbaths there—or look into the deep bosom of creation, spread abroad like a canopy above us, and look and listen till we can almost see and hear the waving wings and melting songs of other beings in other worlds—to youth the evening is delightful, it accords with the flow of his light spirits, the fervor of his fancy, and the softness of his heart. Evening is also the delight to virtuous age—it affords hours of undisturbed contemplation—it seems an emblem of the calm and tranquil close of busy life—serene, placid, and mild, with the impress of its great Creator stamped upon it; it spreads its quiet wings over the grave, and seems to promise that all shall be peace beyond it."

USEFUL INVENTION.

M. Farkas de Farkasalva, in Hungary, has invented a machine by which a person may plunge to the bottom of the sea, walk at the bottom, work with hands and feet, ascend easily to the surface, or stop in the middle, without any help; and in this manner remain several days under water, without intermission and without effort. It costs about £90, and only employs two men.

A GUN DISCHARGED.

We remember to have heard a good story relating to one Alexander Gun, who belonged to the Customs at Edinburg, and was dismissed for improper conduct. The entry opposite his name in the books stood thus: "A Gun discharged for making a false report."

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